

441

ACTCTTTTGA ATTCCTTTAC ATCTTCATCT GTAATCTCGT ATAAGGCATT TATAAATTCA	17580
ACTTTAAATG TCCCAGGAAG ATGTCCATTT GGACGTTTTT CTGCTATTTT TCCAGCGATA	17640
TTGTAAACCA ACACTGCTGT TTTTAATGAT TTCAATTCTT GACCTTTTTC TAGTCCGATA	17700
AAGCTTGCTA CTACAGCTCC TAATAAGCAT CCTGTCCCAA TGACTIONTCG CATCATAGCA	17760
CTACCATTAT GAATCATTAC CACTTCTCCA TTAACAGCAA TGGCATCCAC TTCACCTGTT	17820
ACTACTATTG GAATATTGAA CTTCTCATT TCTGCTAGAG CAATTTCGTC AATATTATCT	17880
ACGCCCCGAC TATCTACTCC TTTAGATGCC ACATCTATTC TACTAAAGA GGCAATCTCG	17940
CCAGCATTTC CTCTAATCGC TGCTAGTTTA TAATTGTTGA TTAGATCATC TGCTACTTTT	18000
TTTCTATATT CTCCTGCTCC ACAGGCTACA GGATCTAAAA CTGCTGGGAC ATTATATTTT	18060
TCTGCAATTT TCAGAGCAGC TTGGTATAAT TTCCAATTTT CATCTGTCAA TGTTCCTATG	18120
TTTATTAATA AACCACCAGC ATACTTTAAC AAATCCTCTA AATCTGCTGG AAACCTACTC	18180
ATGGCTGGTG AGGCGCCCAG TGCTACTAAT CCATTGCTG TGAATTTTTT TACTACATCA	18240
TTGGTTATAC AAATGACCAA TGGTGCTTTT TCTTTTAATA ATTTTAAACT TGTCATATTG	18300
AAATCCTTCC TTTTCACTTT ATACGATCTA CTAATTTTGA TTTATCTTTA GTTGAGAATT	18360
TTTTTCATTT ACATTGAATG ATTTATACTC AATGAAAATC AAAGAGCAAA CTAGGAGGCT	18420
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TGACCAAAAG ATGGGCATAG TCTGATGAAG CCACGCCGA ATACATTAGA TCCTGAAAGG	18840
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TAAAGCCTT TTGGAAATAA CCATCTTCAT CTGCTTCAAG AAAGCCTAGT TGCTTGGCAA	18960
AACGAAGCTT GGATTCAAGT TTATCTGCGT GACTACGAG GCACCCAGCA TGGATAAGAA	19020
GGCATCAAAG AAGTGATAAT CTTGAATCAG ATAGTCCTTT AAGACCTTAT TCTCAATTGT	19080
CCCCGAAAA AGTTCCTTAA CAAAACGATG ATTGATTGCA GCCTGCCAAT CCTTCTGACT	19140
GCTTTTAAAT AATTCTCCAA CAGTCAAACC TGGCTGAAAT GCATAGTCTT GTGTTTCCAT	19200
ATTTACTTCT CCTCTCTTAA CTTGTTAGTA ATTAATAAAA CACCAAGAAA TATCAAGCAA	19260

442

AATCGTAATT CCACTTGATC CTTTAAAGC ACATCGAGAG CATTTGCAGA GAGCTAACTA	19320
AACAAGCCTA TCCAGTTTAT ATAAACAAA AACTCCAATT ACAATCAAGA ATTAGAGTTG	19380
ACTTACAAGA TTAGACCGTT CATTTACCA TACGAAAAA CTGTTACAT TTCCTTCGC	19440
CAGTCTTAAC TGTATCAGGT TCAATGGGT TATCTCAGC CTAAGCACC CCAAATGTCT	19500
CTATTATTTA ACTACTGAAC CAGTATAGCA AAAAATGAA GCCCTAGCA GATATTGAC	19560
CGAAAAATAT CTTTATATAT AATATATTGA AACTAGAATA GTACACCTCT ACTTATAAAA	19620
CATTGTTAGA AATCGATTTG ACTGTCCTGA TTGATTGTG CTATTCTTAT TTCATTTTAC	19680
TATAGTTTTC GATAGCAATT TATCTTCCA ATACACGAAG AAAACCTCC ACATTCAGTG	19740
GAGGCAATCT GTTTTATCAA TACAATTTTA AGTCACGAGG GTCAACTGGG AAGGTGGGT	19800
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CACGTCTATC AACTGCTTCT GCCACTTCTT GAAGCGAGTC AAAGGCAGCT GGTCCACCGT	20100
CGATTTGACG ACCACCGTGG TTGGTTACCC AGATACCAGA AGCTCCTGCA GCAAGCGAAC	20160
GTTCACGTC CTCACGGCAT TGTGGTCCCT TGACATACAC AGGAAGACCA GAGTATTCAG	20220
CGATAAATC TACATCGCGT GGAGACAAGC GTTGTTTAGC TGATTTGTAA ACAAAGTCCA	20280
TTGATTTACC AGCACCTTCT GGCAGGTATT CTTCAACAAT CGGCATGCCA ACTGGGAAGA	20340
CAAAACCATT ACGCTTATCC ACTTCAGAT TCCCCCTAC AGTAGCATCT GCCGTCAAGA	20400
CAATCGCTTT ATAACCTTCA GCCTTCACAC GGTCCATGAT GTGGCGGTG ATACCGTCAT	20460
CCTTACTAAA GTAAAATTGA AACCAATGAG GTGTCCCTTG GAGGGCTTCA GAAATCTCTG	20520
GAAGGTCAAC AGTAGAGTAA GAACTGGTTG TATAAGAGA ACCAAACTCA TGCACACCAC	20580
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TGATTGGAGA AGATAGTTTT TCACCTGCAA ATTCAATCTC TGTACTTGA TTTTCTACAT	20700
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TGAAAGTATC TTCCGCCCCA CTAGCGATAT AGCCAAATGC TGCTTTAGGA ATAACTTGT	20820
GCGCCATTGG CTCCAAATCA TAGGTATTGA TGAACTCTAC ATGACCTTCT GCATTGCTTG	20880
TTTTGTATGA CATAAAATGT CCTCCTTAAT AAGTAAGCGT TTACTTTGTG TATTACAAA	20940
ATATCTTAAC TCTTTTTCAA AACTTTTAAA ATATTTTGTG TGGAATTTT AGAAATTTTA	21000
TGTCTATGAT AAAAATCCTT ATAACGGCAA TAAAAATAG ATATTATCCA AAGAAGATTT	21060

443

TAAGTGCTAC AATAACTGTA TTATTTCTAG ATGGGAGGTT CTATTTTGG ATTGATCCAT	21120
TGTTGAACAA TATCTACCAC TATATCAAAA GGCATTCTTT CTGACCTTGC ATATTGCAGT	21180
TTGGGGAATT TTGGGATCCT TTCTGCTCGG TTTAATCGTT AGTATCATCC GACATTATCG	21240
AATCCTTGTT TTGGCGCAAG TAGCGACAGC CTACATTGAA TTGTCACGTA ATACGCCCTT	21300
TTTGATTCAA CTCTTCTTTC TCTACTTCGG TCTTCCCCGA ATCGGGATTG TCCTATCTTC	21360
AGAAGTCTGT GCAACGCTTG GGCTTGCTTT TTTAGGAGGC TCCTATATGG CAGAATCTTT	21420
CCGAAGTGGG CTGGAAGCCA TCAGTCAAAC CCAGCAGGAG ATTGGCCTCG CTATTGGTCT	21480
GACACCTCTA CAGGTCTTTT ACTATGTGGT TCTTCCGCAA GCAACAGCGG TGGCACTCCC	21540
CTCCTTTAGT GCCAATGTCA TTTTCTTAT CAAGGAAACC TCTGTTTTCT CAGCAGTGGC	21600
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GAAATAATCT CCTGAGAATC TTACAGGGAT TGGGCGTTAC GATTGGGATA TCCATCCTGT	21840
CTGTCTCTT ATCCATGATG TTCAGAACAG TCATGGGAAT CATCATGACC TCCCATTCTA	21900
GAATCATACG ATTTTAAACA CGATTGTATC TGAATTTAT CCGTATCATG CCCCAGCTGG	21960
TGCTACTCTT CATCGTTTAC TTTGGCTTGG CTCGAACTT TAATATCAAT ATCTCAGGTG	22020
AGACTTCAGC TATTATCGTT TTTACCTCT GGGGAACAGC TGAAATGGGA GACTTGGTAC	22080
GTGGAGCTAT CACTTCTCTC CCTAAACATC AGTTTGAAAG TGGACAGGCA CTCGGCTTGA	22140
CTAATGTTCA ACTTTACTAC CACATCATCA TCCCACAAGT CTTAAGAAGA CTGCTACCGC	22200
AGGCTATCAA TCTTGCTACT CGGATGATTA AAACCACTC ATTAGTTGTT TTGATTGGGG	22260
TTGTGGAAGT GACCAAAGTT GGACAACAAA TCATCGATAG CAATCGCCTG ACCATCCCAA	22320
CTGCTTCATT TTGATTAT GGAACCATTC TAATCTTATA TTTCGCAGTT TGCTACCCTA	22380
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TAGAAATCAA GGAACATAAAA AAATCCTTCG GAGACAATCC CATCCTCCAA GGACTTTCTC	22500
TAGAAATCAA AAAAGGGGAA GTTGTGTGCA TCCTAGGGCC ATCTGGTTGT GGGAAAAGTA	22560
CCCTCCTTCG TTGCCTCAAC GGCTTAGAAA GTATTCAAGG TGGAGATATT CTTCTGGATG	22620
GTCAGTCTAT CGTTGAAAAA AAAAAAGATT TTCACCTAGT TCGCCAAAAG ATTGGCATGG	22680
TCTTTCAAAG TTATGAACTC TTTCCCCATC TGGATGTCTT ACAAACCTC ATCCTAGGCC	22740
CTATCAAAGC TCAAGGAAGG GACAAGAAAG AAGTAACGGA AGAAGCTTTG CAATTACTAG	22800

444

AGCGTGTCGG	TTTGCTGGAT	AAACAACATA	GCTTTGCCCG	TCAATTATCT	GGTGGACAGA	22860
AGCAACGTGT	TGCAATTGTC	CGTGCCCTCC	TAATGCATCC	AGAAATCATC	CTTTTGTACG	22920
AGGTGACTGC	TTGCTGGAT	CCAGAAATGG	TGCGTGAGGT	GCTGGAACTT	ATCAATGATT	22980
TGCCCCAAGA	AGGCCGTACC	ATGATTTTAG	TAACCCACGA	AATGCAGTTT	GCCCCAAGCCA	23040
TTACTGACCG	GATTATCTTC	CTCGACCAAG	GGAAAAATCG	TGAAGAAGGA	ACAGCTCAAG	23100
CCTTCTTTAC	CAATCCGCAA	ACCAAACGAG	CCCAGGAATT	TTTAAACGTC	TTTGACTTTA	23160
GCCAATTCGG	CTCATATCTA	TAAAGGAGAT	TCTTATGAAA	CTATTCAAAC	CACTCTTAAC	23220
TGTTTTAGCA	CTTGCCTTTC	CCCTTATCTT	TATCACTGCT	TGTAGCTCAG	GTGGAAACGC	23280
TGGTTCATCC	TCTGGAAAAA	CAACTGCCAA	AGCTCGCACT	ATCGATGAAA	TCAAAAAAAG	23340
CGGTGAACGT	CGAATCGCCG	TGTTTGGAGA	TAAAAAACCG	TTTGGCTACG	TTGACAATGA	23400
TGGTCTTAC	CAAGGCTACG	CTACGATATT	GAAGTAGGGA	ACCAACTAGC	TCAAGACCTT	23460
GGTGTCAAGG	TTAAATACAT	TTCAGTCGAT	GCTGCCAACC	GTGCGGAATA	CTTGATTTC	23520
AACAAGGTAG	ATATTACTCT	TGCTAACTTT	ACAGTAACTG	ACGAACGTAA	GAAACAAGTT	23580
GATTTTGCCC	TTCCATATAT	GAAAGTTTCT	CTGGGTGTCG	TATCACCTAA	GACTGGTCTC	23640
ATTACAGACG	TCAACAACCT	TGAAGGTAAA	ACCTTAATTG	TCACAAAAGG	AACGACTGCT	23700
GAGACTTATT	TTGAAAGAA	TCATCCAGAA	ATCAAACCTC	AAAAATACGA	CCAATACAGT	23760
GACTCTTACC	AAGCTCTTCT	TGACGGACGT	GGAGATGCCT	TTTCAACTGA	CAATACGGAA	23820
GTTCTAGCTT	GGGCGCTTGA	AAATAAAGGA	TTTGAAGTAG	GAATTACTTC	CCTCGGTGAT	23880
CCCGATACCA	TTGCGGCAGC	AGTTCAAAAA	GGCAACCAAG	AATTGCTAGA	CTTCATCAAT	23940
AAAGATATTG	AAAAATTAGG	CAAGGAAAAC	TTCTTCCACA	AGGCCTATGA	AAAGACACTT	24000
CACCCAACCT	ACGGTGACGC	TGCTAAAGCA	GATGACCTGG	TTGTTGAAGG	TGAAAAAGTT	24060
GATTAGTCAT	TAACCTTAA	AAGGAACTGG	ATTTTAAGCT	CCAATCCCTT	TTTAAGATTT	24120
TACCTATAAC	ATCCTGAGTC	TATCTAAGAT	GTTCAATCTG	AACACAGTGT	ACATACTTTA	24180
TCTTCTATTG	CATATACTTT	ATCACATAAG	ATACGAATAT	CCTCTTCACT	ATGACTAGCA	24240
ATCAAAATTG	TTGTCCCTTT	TTCACTAGAG	AGCTTTCTAA	ACAATGTTCT	CATATTTTCT	24300
ACACTTGATT	TATCCAAGGC	ATTCTAGGT	TCATCTAGTA	AAAGAATAGA	GGGATTCTCC	24360
ATAATTGCTT	GAGCAATCCC	TAGCTTTTTC	CTCATACCTA	GCGAATAAGT	TTTAACTTTC	24420
TGGTCTTTT	GCTCATATAG	ACCAACTATT	TTCAGTGTAT	CATTGATTTT	CTGATTACCA	24480
ACTACTCCTC	GTATGCTTGC	CAAATATTGT	AAATTCTTAA	AGCCACTATA	ATAATTTATA	24540
AAACCAGGTT	CTTCAATCAA	AGCTCCCAAA	TTAGCTGGAA	TTTTTCTCTC	AGGAACAATA	24600

445

TTTTCCCAT	TGATTAACAC	TTCTCCATAA	GACGGACTAT	ATAAACCAGC	TATTAATTTA	24660
AACAATACAC	TTTTCCCTGA	GCCATTCGCA	CCAGTAATTC	CTATAATTTT	CCCCGTGTTA	24720
CAACTAAAGT	TAAGGTTTGT	AAAAACACAT	GTCTTTTTTA	ATTTCAACTC	AATATTTTTT	24780
AATGTAATTA	TTTCATTCAT	TCTATAAACC	TCCTCTTTTG	ACGAGTGAAA	TAGAAAATGC	24840
TTTGAAAAAG	AAAGACTAAA	AATAGCAACT	GAAGAAATAA	ATCTCGTCCT	ATATCTCCAT	24900
TCCCTCGATT	CAAAATATAA	AATAGATAAT	TAGTTTCGATT	TCCTACAAAT	AGACCACCAA	24960
ACACAATCAT	GAGTAAAAAG	AAACTAACGC	AAGCAAAGTT	CG		25002

(2) INFORMATION FOR SEQ ID NO: 49:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11443 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

CAGGTACGGT	GAGGCGCAAC	TAAAATATAA	TTTTCATCTT	GATTAGGAAT	TTTATCAGTA	60
TTATGATAGT	GAGCATTGCC	ATTGATGGAC	CATAAGAGCA	ATACAACTAA	TCCACGCAAA	120
TAAGTATAAA	ACATGCGATC	TCCTTCGATT	GTTTTCTTGT	TATTATTATA	CCTTATCAAA	180
GGAGGGCTGG	CAAACCTTTC	CCTTGACTAG	ATACATATTT	AGGATGAAAT	TAGAATTCTG	240
TTAAAAAATA	TGATATAATA	GAATTTATGG	ATAAAAATAA	GATTATGGGA	TTAACCCAAA	300
GAGAAGTCAA	GGAAAGACAG	GCTGAGGGTT	TGGTCAATGA	CTTTACCGCA	TCAGCCAGTA	360
CCAGCACTTG	GCAAAATCGTT	AAACGAAATG	TCTTTACCCT	TTTTAACGCT	TGAACTTTG	420
CCATTGCTTT	GGCTCTTGCC	TTTGTCAGG	CTTGAGCAA	TCTGGTCTTC	TTTGCTGTTA	480
TCTGCTTTAA	CGCTTTTTCT	GGGATTGTGA	CCGAGCTACG	AGCCAAACAC	ATGGTGGACA	540
AGCTCAATCT	CATGACCAAG	GAAAAGGTCA	AAACCATCCG	TGATGGTCAG	GAAGTTGCTC	600
TTAATCCTGA	AGAATTAGTG	CTAGGAGATG	TCATTGTTTT	GTCTGCAGGA	GAGCAGATTC	660
CTAGTGATGC	CTTGTTTTTG	GAAGGCTTTG	CGGAAGTCAA	TGAAGCCATG	TTAACGGGAG	720
AAAGTGATTT	GGTGCAAAAG	GAAGTTGACG	GCTTACTTTT	GTCAGGAAGT	TTCTAGCCA	780
GTGGGTCAGT	TTTATCTCAA	GTTCAACCATG	TCGGTGCAGA	CAACTATGCT	GCCAAACTCA	840
TGCTTGAGGC	TAAGACCGTT	AAACCCATCA	ACTCCCGTAT	CATGAAATCG	CTGGACAAGT	900
TGGCTGGTTT	TACTGGGAAG	ATTATCATTC	CCTTTGGTCT	GGCTCTCTTG	CTGGAAGCCT	960

446

TGCTTTTAAA AGGCCTGCCT CTCAAGTCAT CCGTTGTAAA CTCGTCGACA GCTCTTTTGG	1020
GAATGTTGCC TAAGGGAATT GCCCTTTTGA CCATTACTTC GCTCTTGACT GCAGTGATTA	1080
AGTTGGGCTT GAAAAAGGTC TTGGTGCAAG AGATGTACTC TGTGAGACC TTGGCGCGCG	1140
TGGATATGCT CTGTCTGGAC AAGACGGGTA CCATCACCCA AGGAAAGATG CAGGTGGAGG	1200
CTGTTCTTCC GTTGACGGAA ACGTATGGTG AAGAGGCTAT TGCCAGCATC TTGACTAGCT	1260
ACATGGCCCA TAGTGAGGAT AAGAATCCAA CTGCCCAAGC CATTGCCAG CGTTTTGTGG	1320
GAGATGTTGC TTATCCTATG ATTTCCAATC TTCCCTTCTC GAGCGACCGC AAGTGGGGGG	1380
CTATGGAGTT AGAAGGCTTG GGGACAGTTT TCTTAGGGGC ACCTGAGATG TTGCTTGATT	1440
CTGAAGTCCC AGAAGCTAGG GAGGCCTTGG AGAGAGGATC ACGTGTCTTG GTCTTAGCTC	1500
TCAGTCAGGA GAAATTAGAC CATCACAAAC CACAGAAACC ATCTGATATT CAGGCTCTAG	1560
CCTTGCTGGA AATCTTGGAC CCCATTGAG AGGGAGCAGC AGAGACGCTG GACTATCTCC	1620
GTTCTCAGGA GGTGGGACTC AAGATTATCT CTGGTGACAA TCCAGTTACG GTGTCCAGCA	1680
TTGCCCAGAA GGTGGTTTT GCGGACTATC ACAGCTATGT AGATTGCTCA AAAATCACCG	1740
ATGAGGAATT GATGGCCATG GCGGAGGAGA CAGCTATTTT CGGACGTGTT TCCCTCATC	1800
AAAAGAACT CATCATCCAA ACGTTGAAAA AAGCGGGACA TACAACGGCT ATGACAGGGG	1860
ACGGGGTTAA TGATATCTTG GCCCTTCGTG AGGCGGATTG TTCTATCGTG ATGGCGGAGG	1920
GGGATCCAGC AACCCTGAG ATTGCCAATC TGGTTCTCTT GAACTCAGAC TTTAATGATG	1980
TTCTTGAGAT TCTCTTCGAG GGTGTCGCG TGGTCAATAA CATTGCCAC ATCGCCCCGA	2040
TTTTCTTGAT AAAGACCATC TATTCCTTCC TGTTAGCAGT CATCTGTATT GCCAGTGCTT	2100
TACTAGGTCG GTCAGAGTGG ATTTTGATTT TCCCTTCAT TCCGATCCAG ATTACCATGA	2160
TTGACCAATT TGTGGAAGGT TTCCCACCAT TCGTTCTGAC TTTTGAGCGA AATATCAAAC	2220
CTGTTGAGCA GAATTTCTC AGAAAAATCCA TGCTTCGTGC CCTACCAAGC GCTCTCATGG	2280
TCGTCTTCAG CGTCTGTTT GTGAAAATGT TTGGCGCGAG TCAAGGTTGG TCTGAGTTAG	2340
AAATCTCAAC TCTACTCTAT TATCTCTTGG GGTCAATTGG TTTCTTATCC GTATTTAGAG	2400
CCTGCATGCC ATTTACCTA TGGCGTGTCC TCTTGATTGT TTGGTCAGTA GGAGGTTTCC	2460
TAGCCACAGC TCTCTTCCCA AGAATTCAAA AACTGCTTGA AATTTCAACC TTAACAGAAC	2520
AAACGTTGCC TGTATTGGT GTCATGATGT TGGTCTTTAC CGTGATTTTC ATCCTGACCA	2580
GTCGTTACCA AGCGAAAAA TAAATCAAAA CCACCAAGTGT GAACTGGTGG TTTGTTCTGC	2640
GGCTATAAGC CGCTTCTACC GGCCAGGGCC AAAGGCCAC CGAAATAGCT TCCTCGCGCA	2700
CCACTTTCCC GAGCAGGTGC TAAAGCACCT TAGTTACTTC CTCTTATTTA TTTGCCAGT	2760

447

AAACGGATCT ACTGACTCGA ATAACGTGAG CTGGTCTGCT ACTCTGTCTT CTTGTAATTG	2820
ATTCTGAATA TATTCAGCTA TCACTTTCTG ATTACGGCCT ACCGTATCTA CATAATAGCC	2880
TCTACACCAA AACTTGCGAT TGCCATATTT GTATTTTAAA TTCGCATGCT TATCAAAAAT	2940
CATCAAACTG CTCTTGCCCT TTAAATAGCC CATAAAGGAC GAAACACTAA GTTTCGGAGG	3000
AATACTGATA AGCATGTGAA TATGGTCTGA ACAAGCATTC GCTTCATGGA TTATTACACC	3060
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TGATAAACTT TGATTATCCT CTCTCATGAG GTACCTCCTG TATGATATGT TGTAGTGGCG	3240
GAGAAACCACT TCTATCTTA TCATTTTAGG AGGTTCTTTT TGTACCACG CTAAAAGCTC	3300
TATGGAAcCA CTAGCATAGC TAGTGGTTTT CGGGAGACAA CAAGAAAGAC TGCAATCTGT	3360
GGATTGCACT TTTTTATACG ATGGATCTAT CGTAGATCTG ATGTGCAAGG CCTACGTGCC	3420
GATCATCTAT CGGTGAACCC AAGAGCGACC CTCAAGCCTG CTTGGATTGA GGAATAGAT	3480
TCAAATATCT GTAGTTAGAC TATTTGAAGT TTGATGTAAG AAAGAGAAAG CGACAGATTG	3540
AAGTAATTTT AACTCTCTC TATTGCTAGA ACAAATGGTC GGATAGGTTG GTAGTTTGAA	3600
AATGAAGATG CTATCTATTG TTAAATGGAA CATAGTGTTA TTTATTAGAA AATCGTTTGG	3660
TTTATTTCTT ATCAAATACG AAAAGCAACT TAAATATTTT AACTAAAATA GATGTTATGA	3720
AGAAAAGGTA AAATGATTTT GGCATAGTGA GGTTCGTCTC TATTTGATAT CATATTTTGT	3780
ATAAAAACAA AAATGTCCAT TGCAAAGGAC AAAATGCGAA GTATATTATT TTTTGAAAAGC	3840
GATATAATGG ATTCATAAAG GAGGTGTATC GTGTCTAGAA AACAAGAACA AATGGAAACG	3900
TTGTTGCTCC TTTTGCGAGA TAGTAAGGAT TATATATCTG CTAAAGTATT GGGAGAAAAA	3960
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GTAGAAGCAT TCATTTTATC TGAAAAGGC AGAGGTTTCA AATTAAATCC AAGAAGTTCC	4080
CTCGTGGACG TTGATGGGAA TTTTACAGAG GCTTTTGATC CTGAAGTAAG GCGTGAAAAA	4140
TTACTAGAAC GTCTCTTGTT GACTGCTCCT AAGCCACATT CTATTTATGA TTTAGGAGAG	4200
GAATTCTACG TAAGCGAGTC AGTAGTACTA AAAGATCGTC AGATATTACA AGAGAGTCTA	4260
GCAATTTATG GGTTAGATTT AAAAATGAGA CAACGAAAGC TTTTATTGA TGGGGATGAG	4320
GCTCAAATTC GTTCAGCCAT TCTAAATCTA CTGCCAATGT TTAATCAGTT GGATTTAGAG	4380
CAAATTACAC AGAATAAGGT TCAGCCTCTT GACGGAGAAC TTGCTCACTT TTGTTGGGA	4440
TTACTGATTA CACTTGAGAG AGAATTGGGG GTAAACATTC CCTATCCATA TAATATAAAT	4500

448

ATTTTCTCTC	ACCTGTATAT	TTTATCAGT	AGGAATCGTC	GTAGTACTAG	TATTCATGTT	4560
GTAGCACCTT	CAAAACCTAC	TATTGTTGAT	GAGAAAATT	ACAGTGTCTG	TCAAAAAATT	4620
ATTCAAGAAA	TGAACAATA	TTTtaggatg	AAGGTTGATG	CAGTTGAGAT	TGACTATCTT	4680
TATCAATACG	TTGTATCTTC	GAGATTGCAA	AAACCATTTT	CTTCGGGAA	GCTTCCTTTT	4740
TCTCAGCGAG	TTTTAGATGT	CACTCATTAC	TATTTTAGCC	GTATGTGTAT	GGACAATAGA	4800
GAGATTGAAA	CGACAGATCC	TGACTTTGTT	GACTTGGCGA	GTCATATCAG	TCCCTTACTG	4860
AGGAGATTAG	ATAATAGAGT	ACAGATTAAG	AATAGTCTTT	TATCACAAAT	TCTTTTAACC	4920
TATCTTAATC	TGGTTAAAGA	GTTAACAAC	ATTTCTAAAG	AAGTGAGTCT	AGTATTGGT	4980
TTTGCTTCCT	TGAGTCTGGA	CGAGATTGGT	TTTCTAGTCT	TATATTTTGC	ACGGTTTCAA	5040
GAAAAGCGAG	CACGTCCTCT	AAAAACAGTA	GTGATGTGTA	CATCAGGTGT	CGGAACCTCA	5100
GAGCTTTTAC	GAGCAGGATT	AGAAAAGCAA	TTTTCTGAAT	TGGATATTAT	TGATGTAGTT	5160
GCTTATCATC	AATTAGATGA	GCTGATAAAT	CTATATCCAG	ATTTAGATTT	CATTGTGACG	5220
ACGGTAGCTT	TGCAGGAACC	AGCAAGTGTC	CCGTTTGTCC	TAGTTAGTGT	TTTTCTAACC	5280
GAGGGTGATA	AACAACGTCT	TCAAGCAAAA	ATTCAGGAGA	TAAACTATGA	ATAATCTTTC	5340
GCTTGTCCTT	ATGGATATAT	CTGTTCAAAA	TCGTCAAGAA	GCCTACAAAG	AATTAGCAAA	5400
TCAAAATCAGC	CTTCTTGTTT	CTGAAGATAC	AGAAAAATA	GAAGAGCTTC	TATATTACCG	5460
TGAGAGACAG	GGAAGTATAG	AGGTTGCTAA	AGGTGTTCTT	CTACCACATT	GTGAAGGAAA	5520
CTTTCAACAT	CATGCTTAG	TGATTACTAG	ATTAAAATCA	CCTATCAGAG	AATGGTCGAA	5580
GGATATCCAG	TGTGTTGACC	TTATTATCGG	TTGGCCATT	GCAGTATCAC	AGGACAAGTC	5640
ATGTATTAAA	ACATTGATGA	GAAGACTAGC	AGATGAATCA	TTCATAAATC	AATTAAAACA	5700
GTTAACAAAA	GAAGAATTAC	GGGAGATAAT	ATATGGAAAT	CAAAGATATT	CTTAATGTGA	5760
GTCTGATCCA	GACGGATTTA	CAGATGCAGA	GCAAAGAAGA	GGTTTTTGAG	GCATTAGCTC	5820
AACTATTGGT	TGAGACGGGT	TATGTGTCTG	ATAGAGACCA	ATTTATCGAA	GGTCTTTATC	5880
AGAGAGAGGC	AGAAGGACAG	ACCGGTATTG	GGAATTATAT	TGCTATTCCC	CATAGCAAGA	5940
GTTCTGCTGT	GGAGAAGCG	GGGGTAGTCA	TAGCTATAAA	TCACAATGAG	ATTCTTGGG	6000
AGACCATTGA	TGGGAAAGGG	GTCAAAGTAA	TTGTACTCTT	TGCAGTTGGT	GATGATACAG	6060
AAGCTGCTAG	GGAGCATTTG	AAGACCTTAT	CACTCTTTC	TCGAAAATT	GGTAATGACG	6120
AAGTTGTTGC	CAAATTAGTT	CGGGCTCAGA	CATCTGATGA	TGTGATTGCA	GCTTTTGT	6180
AATAAGAAAA	AATTTTGAG	GGTATCCGTA	TGAAAATTGT	TGGTGTGCA	GCTTGTACTG	6240
TGGGAATTGC	CCACACTTAT	ATTGCACAGG	AAAAATTAGA	GAATGCCGCA	AAGGTAGCTG	6300

449

GACATGTGAT TCATGTTGAG ACTCAGGGGA CAATAGGGGT AGAAAATGAA TTGAGTCAAG	6360
AGCAGATTGA TGCAGCGGAT GTAGTTATTT TAGCAGTTGA TGTTAAGATT TCTGGTATGG	6420
AACGCTTTGA GGGTAAAAAG ATTATCAAGG TTCCAACAGA AGTGGCAGTC AAATCTCCCA	6480
ATAAACTGAT TGCTAAAGCT GTTGAGATTG TTACGAAATA ACTGAAAATA TTTAAGGAGA	6540
AAATATATGT TGAACACTT AAACCTAAAA GGTCACTTAT TGACAGCCAT TTCCTATATG	6600
ATTCCAATTG TTTGTGGTGC AGGATTCTTA GTTGCCATTG GTTTAGCAAT GGGGGGTGGT	6660
GTTCTTGACG CTCTTGTAGC AGGAAAATTC ACTATCTGGG ATGCTTTAGC AACTATGGGT	6720
GGTAAAGCCC TTGGTCTCTT GCCAGTTGTT ATTGCTACAG GTTTGTCTTA CTCGATTGCT	6780
GGTAAGCCAG GGATTGCACC AGGTTTGTGTT GTTGGTCTAA TTGCCAATTC TGTGGTTCA	6840
GGGTTTATCG GTGGTATCTT GGGAGGTTAT ATAGCTGGTT TCTTGGTTCA AGCGATTATT	6900
AAAAAGGTCA AAGTACCAA CTGGATTAAA GGTTTAATGC CAACCTTGAT TATTCCTTTT	6960
GTAGCCTCTT TGSTAAGTAG TTTGATTATG ATTTATATTA TTGGAGCGCC TATCGCAGCC	7020
TTTACCAACT GGTGACGAG CTTATTACAA AGCTTGGGAA GTGCTTCAAA TGGTTTGATG	7080
GGGGCAGTTA TTGGAATTCT CAGTGCTGTT GACTTTGGTG GGGCACTTAA TAAAACAGTC	7140
TATGCGTTTG TGTGACTTT ACAGGCTGAA GGTGTGAAAG AACCATTGAC TGCTTTACAA	7200
TTGGTGAATA CTGCTACACC AGTTGGATTT GGATTGGCCT ATTTTATCGC GAAATTACTC	7260
AAAAAAAATA TCTATACTCA AGAGGAAATC GAAACATTGA AATCGGCTGT TCCTATGGGG	7320
ATTGTCAATA TTGTTGAAGG TGAATTCCG ATTGTTATGA ATAACCTGGT TCCAGGTCTC	7380
ATTGCAACAG GTATCGGTGG TGCTGTTGGT GGTGCTGTTT CTTTGACAAT GGGTGCTGAT	7440
TCTGCTGTGC CATTTGGTGG AGTGCTTATG TTACCAACCA TGACTCGTCC AGTAGCTGGT	7500
ATTTGTGCCT TGTTAGCTAA CATTTAGTGC ACAGGACTTG TCTACGCGAT TTTGAAAAAA	7560
CCAATAAAAC ATGCAGAACC AGTTATGACT GTTGAAGAAG AGATTGATTT GTCAGATATT	7620
GAAATTTTGT AAGAGGGTAA CGATGTCAAG AATTGAATTT TCACCATCTT TGATGACCAT	7680
GGATTTGGAC AAATTCAAAG AGCAGATTAC TTTTTTGAAT GATAAAGTAG CATCTTATCA	7740
TATCGATATT ATGGATGGCC ATTTTGTTC CAATATTACC TTGCTCTCCTT GGTTCATTCA	7800
AGAAGTTCAA AAAATTAGTG ACACACCTTT ATCAGTTCAT CTGATGGTCA CAGACCCAAC	7860
CTTTTGGGTA GATCAAGTTC TCGATTTACA ATGTGAGTAT ATTTGTATTC ATGCTGAAGT	7920
TCTGAATGGT CTTGCTTTTC GTTTGATTGA TAAAATTCAT GATGCAGGTC TAAAGGCTGG	7980
TGTTGTCTCTT AATCCTGAAA CACCTGTTTC TACAATCTTT CCCTACATTG ATTTACTTGA	8040

450

CAAAGCAACT ATTATGACTG TAGATCCAGG TTTTGCAGGA CAACGCTTTT TGGAGTCTAC	8100
CTTGATATAA ATCCAAGAAC TCCGTCAGCT TAGAGTTCAG AATGGTTATC ACTACATCAT	8160
TGAGATGGAT GGTTCCTCGA GTCGTAAGAC TTTCAAACAA ATTGATGTGG CAGGACCAGA	8220
TATTTATGTT ATAGGTCGCA GTGGATTATT TGGTTTGGAT GACGATATTG CCAAAGCCTG	8280
GGATATCTGT TCTAGAGATT ACGAAGAAAT GACCGGAAAA ACAATGCCAA TCAATAATG	8340
GTTTGAGAAG AAATTTATTA GTTAGGAGGA ATATATGTCA CTACAATCAG TTAACGCCAT	8400
TCGTTTCTCT GCGGTAGATG CTATTAACAA ATCTAATTCT GGTCAACCCG GAATTGTCAT	8460
GGGTGCTGCG CCAATGGCTT ATAGCCTATT TACAAAGCAC CTTAGAATTA CACCTGAGCA	8520
GCCAACTGG ATTAACCGAG ATCGCTTTAT CTTGTCTGCG GGTCAATGGT CAATGCTACT	8580
GTATGCTCTC TTGCATTTAA CAGGGTATAA GGATGTATCC ATGGACGAGA TTAATAATTT	8640
CCGGCAATGG GGATCTAAGA CACCTGGTCA TCCTGAAGTG ACGCATACGT CTGGTGTGGA	8700
TGCGACATCT GGTCCGCTTG GTCAGGGGAT TTCTACTGCC GTTGGTTTCG CCCAAGCAGA	8760
GCGTTTMTTA GCTGCTAAGT ACAACAAAGA TGGTTTCCCT ATTTTGTACC ATTATACTTA	8820
TGTTATCGCT GGAGACGGTG ACTTCATGGA AGGAGTGTCT GCGGAGGCGG CTTCTTATGC	8880
AGGTCATCAA GCTTTAGATA AGCTTATCGT CCTCTACGAC TCCAACGACA TCTGCTTGGA	8940
TGGTGAGACC AAAGATACTT TCTCTGAAAA TGTTCCGCTC CGTTACGATG CTTATGGTTG	9000
GCATACAGTT CTGGTAGAAG ATGGAACAGA TTTAGCAGCA ATTTCTACAG CAATTGAGAC	9060
GGCCAAGTTT TCTGGTAAAC CGAGTTTGAT TGAAGTGAAA ACGGTAATTG GTTACGGCTC	9120
ACCCAATAAA AGTGGTACAA ATGCTGTTC A TGGTGACCA CTAGGAGCAG AAGAAACAGG	9180
AGCAACTCGT AAGTTTTTGG GATGGGATTA CGATCCATTT GAAGTACCAG AGGAAGTATA	9240
TTCTGATTTT AAGACAAATG TAGCGGATCG TGGTCAGGAG GCATACGATG CTTGGGCTAG	9300
TTTGGTGTCT GATTACAAGG TTGCTTATCC CGAAGTTGCT AGTGAGATTG ACGCTATTGT	9360
AGCTGGAAAA TCCCCTGTAA CCATTACTGA AAAAGACTTC CCTGTCTATG AGAATGGCTT	9420
CTCTCAAGCA ACTCGTAATT CGTCCCAAGA TGCTATTAAT ACAGCAGCAG TTTTACCAAC	9480
CTTCTTAGGT GGATCGGCAG ACTTAGCTCA CTCTAACATG ACCTACATCA AGGCAGATGG	9540
CTTACAAGAT AAATATAATC CATTAAACCG CAATATTCAG TTTGGGGTAC GTGAATTTGC	9600
CATGGGAACA ATCCTCAATG GAATGGCTCT TCATGGTGGT TTACGAGTTT ATGGCGGAAC	9660
CTTCTTTGTT TTCTCTGACT ACGTCAAAGC TGCTATTCCG CTATCAGCCA TTCAGGAGTT	9720
GCCTGTAAC TATGTCTTTA CCCATGATTC AATTGCCGTT GGTGAAGATG GTCCAACTCA	9780
TGAACCAAGT GAACATTGCG CAGGTTTACG CTCAATGCCA AACTTGACTG TTATCCGTCC	9840

451

AGCGGATGCC CGTGAACTC AAGCGGCTTG GCATCATGCC TTGACCAGTA CCACCACTCC	9900
AACGTGCATT GTCCTAACCC GTCAAACTT GGTAGTTGAA GAAGGGACAG ACTTTGGTAA	9960
GGTCGCTAAA GGAGCCTACG TCGTGTATGA TACCCCGGGA TTTGATACTA TTATCATTCG	10020
TACAGGATCT GAGGTCAATC TAGCTATCAA AGCTGCTAAG GAATTGGTTT TACAAGGTGG	10080
TAAAGTACGT GTGGTATCTA TGCCCTCAAC CGAACTATTT GATGCTCAAG ATGCTACCTA	10140
CAAGGAAGAC ATTTTACCAT CTAAGACTCG TCGTCGTGTG GCCATTGAAA TGGCAGCGAC	10200
CCAAAGTTGG TACAAGTATG TTGGTTTGGA TGGCGCGGTC ATCGGTATTG ACATCTTCGG	10260
TGCGTCTGCC CCAGCTCAGA CTGTGATTGA TAATTATGGA TTTACGGTAG AGAATATCGT	10320
TGCTCAAGTT AAGTCCCTAT AGAAACCAAT TACAATGAAG ATACAGCTGT TGTGAGACTA	10380
GCAGATGTAG TGATAGACAC TAATCAGATG ATTGGTTATT TAAAACTGT AATGAAAATG	10440
TAATAATTTA TCTACGAAAG TTATAGTAGA TAGTATACAC AATAGAGTAT ACCCTGAAAC	10500
GGTTGCCAAG TACGCTAATC ACTTTGCTAC TGATCTAGAT AGTTTCTTTA ATCAATAAAC	10560
ACAGCATCCA CAGATTGACT TAGGATATTG TAAGTTTTTT GAAAGCTAGA GAGAAGGTCT	10620
CTAAATTTAA AAAACGCATA GTATAGGATG TTGAAATGAT GAACTGCACC CAAAAGTTA	10680
GACAGAAAAA AATCTAACTT TTGGGGTGT TTTATTATGA AATTAACTTA TGATGATAAA	10740
GTTTCAGTTCT ATGAACCTAG AAAACAAGGA TATATCTTAG AGAAGCTTTC AAATAAATTT	10800
GGGATAAATA ATTCTAATCT TAGGTACATG ATTAAATGA TTGATCGTTA CGGAATAGAG	10860
TTCTGCAAAA AAGGGAAAAA TCCTTACTAT TCTCCTGATT TAAAACAAGA AATGATTCAT	10920
AAAGTCTGAC ATGAAGGCTG GACTAAAGAT AGAGTTTCTC TTGAATACGG TCTCCCAAGT	10980
CGTACGATAC TTCTTAACTG GCTAGCACAA TACAGGAAAA ACGGGTATAC TATTGTTGAG	11040
AAAACAAAAG GGAGAGTACC TGAGAGCGGA GAATGCCATC CTAaaaaaAGT TAAGAGAACT	11100
CCGATTGAAG GAGGAAAAAG AGAAATAAGA AAGACAGAAA TTGTTCAAGA ATTAATGACT	11160
GAGTTTTCGT TAGATCTTCT TCTAAAAGCC ATTAACTAG CTCGTTGGAC CTACTACTAT	11220
CAC TTGAAAC AGCTAGATAA ACCAGATAAG GACCAAGAGC TTAAAGCTGA AATCAATCC	11280
ATCTTTATCG AACACAAGGG AGATTATGCT TATCGCCGGG TTCATTTAGA ACTAAGAAAT	11340
CGTGCTTATC TGGTAAATCA TAAAAGAGTT CAAGGCTTGA TGAAAGTACT CAATTTACAA	11400
GCTAGAATGC GACAGnAACG AAAATATTCT TCTCATAAAG GAG	11443

(2) INFORMATION FOR SEQ ID NO: 50:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5338 base pairs

452

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

CCAATTACAT TATATTATCA AAATCGTCGA AACTGGCTCC ATGAATGAGG CAGCCAAGCA	60
ACTCTTTATC ACTCAGCCAA GTCTCTCCAA TGCAGTGCGA GATTGGAATG AAAATGGG	120
CATTGAGATC TTTATCCGCA ATCCCAAGGG AATCACCTTG ACCCGTGATG GCATGGAGTT	180
TCTCTCTTAT GCCCGTCAGG TTGTCGAGCA GACCCAGCTT CTGGAGGAAC GCTATAAAAA	240
TCCTGTGCGC CACCGCGAAC TCTTTAGCGT TTCGTCTCAA CACTATGCCT TTGTGGTCAA	300
TGCCTTTGTC TCTTTGCTCA AGAAAAGCGA TATGGAGAAA TACGAATCTT TCCTTCGTGA	360
AACTCGGACT TGGGAGATTA TCGACGACGT CAAGAACTTC CGCAGTGAGG TCGGGGTCCT	420
CTTCTTAAAC AGTTACAACC GTGATGTTTT AACCAAGATG CTGGATGACA ATCACCTGCT	480
AGCCCAACCAT CTCTTCACAG CGCAACCGCA TATCTTTGTC AGCAAGACCA ACCCTCTGGC	540
AAAGAAAGAC AAGGTGAAAC TGTCTGATTT GGAGAATTC CTTACCTCA GCTATGACCA	600
AGGGACGCAC AACTCCTTCT ACTTTTCAGA AGAGATTCTT TCTCAAGAAC ACCACAAGAA	660
ATCCATTGTG GTCAGTGACC GTGCCACCCT CTTTAATCTC TTGATTGGTT TGGATGGTTA	720
TACCATTGCG ACAGGGATTT TGAACAGCAA CCTAAACGGA GACAATATCG TTTCTATCCC	780
ACTGGATATT GATGACCCGA TCGAGCTGGT CTATATCCAG CATGAGAAAA CCAGCCTATC	840
TAAGATGGGC GAACGCTTTA TAGACTATCT CCTAGAAGAA GTTCAGTTTG ATAGTTGAGA	900
AATGATAAGA ACCAATATGT AGGCTAGCAA CAACCTGCAC ATTGGTTCTT TTTACTTATA	960
ATTAAAAGTT TCCCTGCCA ACTTATCAGC TAGCTTGGGA AAGAGAGTAT AAAACTTATG	1020
GGCTAGGTTT AAAAAATCG GGAGATTGAG TTCTCGTTTG TTTTTCCTA TAATCTTGAC	1080
AATCTTTTGA GCCACTGCAT CTGGTTCTAG CAGGAAGCGA TCAACCGATT TAAGATAAGT	1140
TCCATCTGGG TCGGCTTGGT CGAAAAATCC TGTACGGATT GGTCTGGAT TGACTGTTGT	1200
CACATAGACT CCATAGGGCA TAAGTTCGAG TCGCAGAGCA TTTGAAAAAC CAATAGCCGC	1260
AACTTGATC GCTGAGTAAA GACTAGACTT GCCAGTAGCT ATTAGACCTG CCATGCTGAC	1320
GATGTTGATG ATATGCCCTT TGCTGCTTTC CTTTCATCGA GCCGCAAGGT GACGAGACAG	1380
ATTTCATCAG GCAAAGGTAT TGACCTCAA CATCTGGTGA ATATCTTTAT CAGCAATCTG	1440
GTCAAATCCC TCAAAAATCC CGTAACCAGC GTTGTTAATC AAGACATCAA TCTTGCCATA	1500
GCGGAGATAA AGATCAGTTA CCAGAGCTTC TAGGGCTGAA TCGTCGGTAA TATCAATTTT	1560

AATCAATTCT GCATGGGAAT AATTTCGGTA GAGTTGGGCT AATTTTTCCT TATTTCTACC	1620
AAGCAAGATG AGTTGGTCAT TGGGCAGGAG TTTGACCATT TCTTGAGCTA GACCACCGCT	1680
AGCTCCGTA ATGAGAATAG TAGGCATACT TATCCTTTCT GTGACTGCTA GATTTCCACT	1740
TCTTCCAAGT CTTTGACCAC ATGGACATTT TCAAAAATTG TGGCAGCGTC TTTCTTGAGT	1800
TTGCTAATAT CTTTGAGAG GAAACGGGCA CTGATATGGT TGAGTAGGAG GCGTTTGCA	1860
CCTGCTTCTA CCGCTACTTG TGCAGCTTGC ATATTAGTTG AGTGACCATG GTTACGAGCA	1920
ATTTTTTCAT CACCCTTGCC ATAAGTGGAC TCATGAACTA GGACATCTGC ATTGACAGCC	1980
AGACGCACAC TGGCACCCGT TTTTCGAGTG TCTCCTAAAA TAGTGATAAT CTTACCTGGA	2040
CGTGGCGCTG AGATATAGTC TGCTGCCTTG ATTTCACTTC CGTCTTCCAA AACAAGATCC	2100
TGGCCGTTTT TGATTTTACC AAAAAGCGGG CCGAACGGAA CACCAGCAGC CTTGAGTTTT	2160
TCAGCATCCA GCGTCCCTTC TAGATCCTTT TGCATGACAC GATAGCCAAC ACAGAAAATA	2220
GTGTGGTCCA GCTCCTCTGC ATACACAGTG AATTTATCGG TTCAAGAAT TTTACCCAGA	2280
GAATCTTGGT CAAACTCATG GAAATGAATG CGGTAGGGCA GACGAGAACC TGACACACGA	2340
AGGCTGGTTA AGACAAATGA CTTGATTCCT TGAGGTCCGT AGATTTCCTAA ATCTGTCTGC	2400
TCTTCATTGG CCGTAAAGGC ACGGCTAGAA AGGAAACCTG GCAAACCAAA AATGTGGTCT	2460
CCATGCAGAT GGGTAATAAA GATTTTGCTG ACCTTACGTG GTCGAATTGT GGTTCACAGA	2520
ATGCGATTTT GCGTACCTTC TCCACAGTCA AAGAGCCAAA CTTCGTTAAT CTCATCCAAA	2580
AGTTTCAGGG CGAGACTTGA AACGTTGCGG GCTTTAGAGG GCTGACCAGC CCCCCTTCCT	2640
AAAAATTGAA TATCCATTCG ATACTTTCTA ATTAATCAAT ATATAACATG GCTGTGCGGT	2700
TTTCCGATCG GAAATAGCGT TTGCCAGAAA AAGCAGCAGC TTCTTGCAAT AAATCCTCTT	2760
GGCTGTAGCC TTTGAGACGT TTTGACCAT CAGCCAATCT TTCCAAATCA GTCAAAGCTG	2820
TGAGACTTTC TAGGCTGATA ACTTCCTCGT CCTCGACAGG CTTTATGTAA ATCTTACCAG	2880
ACTCTTCAAA GACTAATTGA TGGGGGAAAA TTTGCGCAAT TTCAAAGAGC AAGTCATCCG	2940
AGATTTTCTC CTCATTTTCA AAGAAAATCC GACCAAGGCC GTCACCTCTA TAACAAAAAC	3000
CAAAGGATTT ACCAGACAGA TTAAGCCGAA TAAAAGGCTT ATTTTCTAGG GTGAAACTTG	3060
GCTCAGTATT GTAAAGATTC AGTTCCTGAC TGAGTTCTGC AAAATAATCC GTCGCAGCCT	3120
GAGGACTCTT TTTCTGATAG AGTTCTGCAA AGTAGGCATT AACAACACTT GGCGGAGGTG	3180
TAATAAGTGT TAACTGCTCC TGATCTGTTT TACCAGCTAG AAGCTGATCC AGATAGACCT	3240
TGTCCAGACT TGTATAACCT CCATACTTTA GAGCCAAAGT TTAAATATCA GTCATAAAAT	3300

454

TCTTCTAACC TCCATTTATT TTTCTCGGAA ATGTAGCCTG TAATCACTTC GCCGTCTTCC	3360
TGATAATCAC GTTCTTCCAG AATTGCAACA CTCTCTAAAT CATGAATCTT GTAGGACTTT	3420
GAAAAAGGCA CTCGCAGGGT AAATGCTTCA AAAATTTCTT TAATCTTATC TAGCAATAAT	3480
GCTTGCAAGT TTTACGACT GTCCTCAGAC TTGGCAGAAA TGAGGGTATA TGGCGTTTGG	3540
GTAGGCGTGA AATCCTCCAC CAAATCCGCT TTATTATAAA GCGTCAAGTG AGGAATATCT	3600
TCCATGTCCA GGTCTTTTCAT GATGGAGAGA ACCGTTTTTT CATGCTCCTC GTGGTAAGGA	3660
TTGCTAGCAT CGATAACATG AACCAGAAGG TCCACATGCT TGCTTTCTTC CAAGGTGAC	3720
TTGAAACTGG ACACCAACTC TGTTCGCAAA TCTTGGATAA AGCCAACGGT ATCTGTCAAA	3780
GTTACTTGGA GATTGCCTCC CAGATGAATA CTCTTGGTTG TCGCATCCAG AGTCGCAAAG	3840
AGCTCATCTG CTTCACTAG GGTCTTACTG GTCAAGATGT TCATGATAGT TGATTTCCTC	3900
GCATTAGTAT AACCAATCAA ACCAATCTTA AAAGTGCTAG ACTCCAAACG TTTTCTCTG	3960
ACAGTCGCAC GATTTTCTC AACCACCTTG AGCTGGCGCT CGATATCCGT GATTGATTG	4020
CGAACGCTAC GACGGTTCAG CTCCAGCTGG CTTTACCAG GACCACGGA ACCAATTCCC	4080
CCTGCTGAC GCGTGAGCAT AATCCCTGA CCAACCAAGC GAGGCAAAAG GTATTGAGT	4140
TGGGCTAGGT GGACTTGGAG CTTCCCTTCA TGGCTTCGAG CCCGCATGGC AAAGATATCC	4200
AAAATCAACT GCATACGTC AATGACCTTA ACACCGAGAA CTTCTCTAG ATTGACATTC	4260
TGCCTTGGGG TCAGACGATT GTTGACGATG ACAGTAGTGA TTTCTTCTGC ATCCACCATA	4320
AGCGCAATCT CTTCCAACCT ACCAGAGCCG ACGAAGGTCT TGGAATCATA TTTTTCACGT	4380
TTTTGTCTGT AGCTATCTAC AACGACTGCC CCTGCCGTTT TCGCTAAACT AGCCAATTCT	4440
TCCATGGAGA GGTCAAAACT GTCCATACCC TGCAATTCCA CACCAATCAG CAGGACTCGC	4500
TCCTCTTTT TCTCCGTTTC AATCATCTAA AACTCCTCT ATCTGGCTTA AAATGCGGTC	4560
TTGTACACCA GATTCTCCAA TCTGATAAAA GGTGACCTGC ATGCGATTAC GGAACCAGGT	4620
CAGCTGACGC TTGGCAAAAC GACGAGTCGC CTGTTTAAGA CTCTCACTAG CTTCTCCAA	4680
GGTCTGCTCT CCACGGAAAT AAGGAAAGAG TTCTTATAG CCAATTCCTT TAGCAGCCTG	4740
TACATTAGGG GAATGGTCAA ACAGCCACTT GGCCTCATCC AAAAGCCCAG CCTCAAACAT	4800
CAAATCCACT CGGTGGTTGA TACGCTCATA AAGTTGACTA CGTTCATCAT CCAAGCAGAT	4860
AATCAGCGGT TCATACAAGG TCTCTTGATT TTCCAAATCC TGACCAAAAT GGGCAATTTC	4920
TAAGGCACGC ATAGCACGAC GACGATTAAT CTGGGGAATC TCAAGGCCCTG CTTGATCCAC	4980
CAAATGGGCT AATTCCTCAT CTGAATATGG CTCCAAACTA GCTCGATAAG CTAAATCTC	5040
CTCATGAGGA GTCTCCCCAC CTAGGTGGTA ACCTTCTAGC AAGCTCTGGA TATAAAGTCC	5100

455

AGTCCCACCG GCGATAATGG CTAGCTTGCC ACGGTTGTGA ATACCCTCAA TAGTCATCTT	5160
AGCTTCTGAA ACAAATCAA AAGCCGAGTA AGACTCGGTT ATCTCTCTAA CATCGATTAA	5220
ATGATGAGGA ACAGCTGCCT GCTCTTCTGG ACTAGCCTTG GCCGTCCCAA TATCAAGTCC	5280
TCGATAGACT TGCTGGCTAT CTCCACTAAC CACTTCGCCA TTAAAACGCT TTGCGGGG	5338

(2) INFORMATION FOR SEQ ID NO: 51:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19446 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

CGGAAACCCA TCTAGTCTCC ATCGTTTGGG AGACCAAGCA ACACGAATCT TAGATGCTTC	60
TCGCCAACAG ATTGCAGATT TAATCGGTAA GAAAAGCGAT GAAATCTTCT TTACCTCGGG	120
TGGAACAGAA GGGGATAACT GGCTTATCAA GGGTGTGGCC TTTGAAAAG CTCAGTTTGG	180
CAAGCACATC ATTGTTTCAG CCATTGAACA TCCAGCAGTC AAAGAGTCAG CCCTCTGGTT	240
GAAAAGTCAA GGATTTGAAG TGGATTTTGC TCCAGTTGAT AAGAAAGGCT TGGTCGATGT	300
TGAGGCGTTA CAGGTTTGAT ACGGCATGAT ACAATCCTCG TTTCCATCAT GGCTGTGAAC	360
AATGAAATCG GCTCTATCCA ACCTATTGAG GCTATTTTCAG AATTCTTGGC AGACAAGCCG	420
ACTATTTTCT TCCACGTTGA TGCGGTTTCAG GCGCTTGCCA AAATCCGAC TGAAAAGTAT	480
CTGACAGAAC GGGTGGATTG CGCGACTTTC TCTAGTCACA AGTTCCACGG GGTTCGAGGT	540
GTGCGCTTTG TCTATATCAA ATCTGGCAAG AAGATTACAC CTCTTCTTAC AGGTGGTGGC	600
CAGGAGCGAG ATTATCGTTC GACAACTGAA AATGTGGCAG GGATTGCAGC GACAGCCAAG	660
GCCCTCCGTT TGTCTATGGA AAAGCTAGAT ATCTTTAGGA GCAAGACTGG GCAGATGAAG	720
GCAGTGATTC GCCAAGCTCT TCTGAACTAT CCGGATATTT TTGTCTTTTC AGATGAGGAA	780
AACTTTGCAC CTCATATTCT GACTTTTGGG ATCAAAGGTG TTCGAGGTGA AGTCATCGTT	840
CACGCTTTG AAGACTATGA TATTTTCATC TCAACAACCT CAGCTTGTTT ATCTAAGGCA	900
GGAAAACCAG CCGGTACCTT GATTGCCATG GGAGTGGACA AAGATAAGGC CAAGTCAGCT	960
GTGCGTCTTA GCCTAGACTT GGAAAATGAT ATGAGTCAGG TCGAGCAGTT TTTGACCAAG	1020
TTAAAATTGA TTTACAATCA AACTAGAAAA GTAAGATAGG AGCATTCATG CAGTATTCAG	1080
AAATTATGAT TCGCTACGGA GAGTTGTCAA CCAAGGGTAA AAACCGTATG CGTTTCATCA	1140

456

ATAAACTTCG TAATAATATT TCGGACGTTT TGTCTATCTA TACCCAAGTT AAGGTAACAG	1200
CAGATCGCGA CCGTGCCAC GCTTACCTCA ATGGAGCTGA TTACACAGCA GTTGCAGAAT	1260
CTCTCAAACA AGTTTGTGGA ATTCAAAAC TTTCTCCTGT TTATAAGGTT GAAAAATCTG	1320
TAGAAGTTTT GAAGTCTTCT GTCCAAGAGA TTATGCGGA CATCTACAAG GAAGGTATGA	1380
CCTTTAAGAT TTCTAGCAAG CGTAGCGACC ACAACTTTGA ACTTGATAGT CGTGAACCTCA	1440
ACCAAACACT TGGAGGGGCT GTATTGGAAG CCATTCCAAA TGTGCAAGTT CAAATGAAAA	1500
GTCCTGACAT CAATCTTCAG GTGGAGATTC GTGAAGAAGC AGCCTATCTT TCTTATGAAA	1560
CCATTGCTGG GGCTGGTGGT TTGCCAGTTG GAACTTCAGG TAAAGGGATG CTCATGTTGT	1620
CAGGAGGGAT TGAATCACCT GTAGCAGGTT ATCTTGCTCT TAAGCGTGGG GTGGATATCG	1680
AGGCAGTTCA CTTTGCTAGT CCACCATATA CTAGTCCTGG TGCCCTCAAG AAAGCGCAGG	1740
ACTTGACCCG TAAATTGACC AAGTTTGGCG GAAATATCCA GTTTATAGAG GTGCCCTTCA	1800
CAGAGATTCA AGAGGAAATC AAAGCCAAAG CGCCAGAAGC TTATTTGATG ACTCTAACTC	1860
GTGCTTTTAT GATGCGGATT ACTGACCGTA TTCGTGAGGT ACGAAATGGT TTGGTTATCA	1920
TCAATGGGGA AAGTCTAGGT CAAGTAGCCA GCCAAACCCT TGAAAGTATG AAGGCTATCA	1980
ATGCTGTTAC CAACACTCCC ATCATTCGTC CTGTGGTTAC CATGGACAAG TTGGAAATCA	2040
TTGACATCGC CCAGGAAATC GATACCTTG ACATTTCAAT CCAACCGTTT GAAGACTGTT	2100
GTACCATTTT TGACCCAGAT CGTCCAAAA CAAATCCTAA AATTAAGAAT GCGGAGCAGT	2160
ACGAAGCGCG TATGGATGTT GAAGGCTTGG TTGAGCGAGC AGTGGCTGGA ATCATGATTA	2220
CTGAAATCAC ACCTCAAGCC GAAAAAGATG AAGTTGATGA CTTGATTGAC AATCTGCTCT	2280
AATTCAGAAA ATCCAAAAGA ATAGCGAAAA TCAGTAAAAA AAGTTAGTTT TTTCTCTAAA	2340
AACAGGTAAA AACTAACTT TTTTATTTT TATGATATAA TGATATAAAA TTTGAATAT	2400
AGAGAGTTT CTGACAATGA ATCAATCCTA CTTTATCTA AAAATGAAAG AACACAAACT	2460
CAAGGTTTCT TATACAGGTA AGGAGCGCCG TGTACGTATT CTTCTTCCTA AAGATTATGA	2520
GAAAGATACA GACCGTTCCT ATCCTGTTGT ATACTTTCAT GACGGGCAAA ATGTTTTTAA	2580
TAGCAAAGAG TCTTTCATTG GACATTCATG GAAGATTATC CCAGCTATCA AACGAAATCC	2640
GGATATCAGT CGCATGATTG TCGTTGCTAT TGACAAATGAT GGTATGGGGC GGATGAATGA	2700
GTATGCGGCT TGGAAGTTCC AAGAATCTCC TATCCAGGG CAGCAGTTTG GTGGTAAGGG	2760
TGTGGAGTAT GCTGAGTTT TCATGGAGGT GGTCAAGCCT TTTATCGATG AGACCTATCG	2820
TACAAAAGCA GACTGCCAGC ATACGGCTAT GATTGGTTCC TCACTAGGAG GCAATATTAC	2880
CCAGTTTATC GGTTTGGAAT ACCAAGACCA AATTGGTTGC TTGGGCGTTT TTTATCTGC	2940

457

AAACTGGCTC CACCAAGAAG CCTTTAACCG CTATTTTCGAG TGCCAGAAAC TATCGCCTGA	3000
CCAGCGCATC TTCATCTATG TAGGAACAGA AGAAGCAGAT GATACAGACA AGACCTTGAT	3060
GGATGGCAAT ATCAAAACAAG CCTATATCGA CTCGTGCTT TGCTATTACC ATGATTTGAT	3120
AGCAGGGGGA GTACATCTGG ATAATCTTGT GCTAAAAGTT CAGTCTGGTG CCATCCATAG	3180
TGAAATCCCT TGGTCAGAAA ATCTACCAGA TTGTCTGAGA TTTTTTGAG AAAAATGGTA	3240
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458

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459

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460

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461

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462

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463

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464

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465

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CGGATTTAGT	CTTGGGAAAG	CCGATATTTT	CGTCGGGCT	ATGGGGAAAA	AGGATGCCTC	17220
TGCCATGCAT	GAGATGAGGG	CTTCCTTTAT	TCAAGGTTC	TTAGAAGCTG	GTCATACTGT	17280
GGAAAAAGCA	GAGCAGGTCT	TTGATGTTAT	GGAGAAGTTT	GCAGGTTATG	GTTTAAACAG	17340
GTCACACGCC	TATGCCTACT	CAGCCTTGGC	CTTCCAGTTG	GCTTATTTCA	AAACGCATTA	17400
TCCAGCCATT	TTTTATCAGG	TCATGTTAAA	TTCTTCCAAC	AGTGATTACT	TAATAGATGC	17460
ACTTGAAGCA	GGTTTTGAAG	TAGCCTCTCT	ATCCATCAAC	ACCATTCCTC	ATCACGATAA	17520
AATTGCCAA	AAGCCATCT	ATCTAGGTTT	GAAATCCATT	AAAGGAGTCA	GTAATGATTT	17580
AGCTCTCTGG	ATTATTGAAA	ATAGACCTTA	TTCTAACATT	GAAGATTTTA	TAGCTAAAAT	17640
ACCTGAGAAT	TATCTGAAAC	TTCTCTGCT	AGAACCTTTG	GTAAGGTTG	GTCTTTTCGA	17700
TTCAATTTGAA	AAAAATCGTC	AAAAAGTATT	TAATAACTTA	GCTAATCTAT	TTGAATTTGT	17760
GAAAGAGTTG	GGAAGTTTGT	TTGGAGATGC	TATTTATAGT	TGGCAGGAAT	CGGAAGATTG	17820
GACGGAACAA	GAAAAATTTT	ATATGGAACA	AGAGCTTTTA	GGGATAGGTG	TCAGCAAACA	17880
TCCACTACAA	GCTATTGCAA	GTAAGGCTAT	TTACCCGATT	ACCCCAATCG	GAAATTTGTC	17940
AGAAAAATAGC	TATGCTATTA	TCTTGGTTGA	AGTTCAGAAA	ATAAAAGTGA	TTCGTACCAA	18000
AAAGGGTGAA	AATATGGCCT	TCTTACAGGC	AGATGATAGT	AAGAAAAAAT	TGGATGTCAC	18060
TCTCTTTTCA	GACTTATATC	GTCAGGTTGG	ACAGGAAATA	AAAGAGGGAG	CCTTCTACTA	18120
TGTAAGGAA	AAAATACAAT	CACGTGATGG	CCGTCTGCAA	ATGATTGCAC	AAGAAATAAG	18180
AGAAGCAGTT	GCTGAACGCT	TTGGATACA	GGTGAAAAAT	CATGAATCGG	ATCAAGAAAT	18240
TTACGCGATT	TTAGAACAAT	TTAAGGCCCC	AATCCAGTC	ATCATCCGGT	ATGAAGAGGA	18300
ACAGAAAACC	ATCGTTTCTC	CCCATCATTT	TGTAGCTAAA	TCCAATGAAT	TAGAGGAGAA	18360
ATTGAATGAA	ATCGTTATGA	AAACGATTTA	TCGCTAAAAA	TACGGAAAAAT	AGAAGAATTT	18420
TCAACGTAAA	TGTGGTATAA	TCAGTAAGAA	TGTTAAAAGA	AAAAGGAGCA	TAACCAATAT	18480
GAAACGTATT	GCTGTTTTGA	CTAGTGGTGG	AGACGCCCTT	GGTATGAACG	CTGCCATCCG	18540
TGCAGTTGTT	CGTCAAGCAA	TTTCAGAAGG	AATGGAAGTT	TTTGGTATCT	ATGACGGATA	18600
TGCTGGTATG	GTTGCCGGTG	AAATTCATCC	CCTAGATGCA	GCTTCAGTAG	GGGACATCAT	18660
TTCTCGTGGT	GGTACTTTCC	TTCACTCAGC	TCGTTACCCA	GAGTTCGCTC	AACTTGAAGG	18720
GCAACTTAAA	GGGATTGAGC	AATTGAAAAA	ACACGGAATT	GAAGGTGTAG	TTGTTATCGG	18780
TGGTGACGGA	TCTTACCACG	GCGCTATGCG	TTTGACTGAA	CATGGCTTCC	CAGCTATTGG	18840

466

TCTTCCAGGT ACAATCGATA ACGATATCGT TGGTACTGAC TTTACAATCG GTTTTGACAC	18900
AGCGGTTACT ACTGCCATGG ACGCTATCGA TAAGATTCGT GATACATCAT CAAGTCACCG	18960
TCGTACTTTT GTAATCGAAG TTATGGGACG TAACGCTGGT GATATCGCTC TTTGGGCTGG	19020
TATTGCAACT GGTGCTGATG AAATCATCAT CCCTGAAGCA GGCTTCAAGA TGGAAGATAT	19080
CGTAGCAAGC ATCAAAGCTG GTTATGAATG TGGTAAAAA CACAATATTA TCGTCTTAGC	19140
TGAAGGTGTG ATGTCAGCGG CTGAATTTGG TCAAAAACTT AAAGAAGCTG GAGATACAAG	19200
CGACCTTCGT GTAACAGAAC TTGGACATAT TCAACGTGGT GGTTCCTCAA CTGCGCGTGA	19260
CCGTGTTTTG GCGTCACGTA TGGGTGCACA TGCTGTTAAA CTTCCTTAAAG AAGGTATCGG	19320
TGGTGTTCG GTTGGTATTC GTAACGAAAA AATGGTTGAA AATCCAATTC TTGGTACTGC	19380
AGAAGAAGGG GCATTGTTTA GCCTTACTGC AGAAGGTAAG ATTGTGGTTA ACAACCCAGC	19440
TACAAA	19446

(2) INFORMATION FOR SEQ ID NO: 52:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 16593 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

TCGTAAATAT GCTCTGTTTT TGGATTTTGT TTCTTAATCT GTTTGGCAAG TGCCTTCATC	60
ATAGAAATAG GACCACACAT ATAGACGGTT GCATGTTCCG GCACTTCTTT TTGTTCAAAA	120
TTAAGATAGC CGTCTTTCGT ACTGTCGATT AGATGGAGTT CAAAATTAGG ATTTTCTGA	180
GCATAGTTAC GGAGTAAATC TAGGTAGACT GCATTTTCAT CTCCACGGAA GCTATAGTAG	240
AAGTGAACCT GTTTATCTAA AATAGGATGT TCACGGATGT AAGAGATGAA GGGGGTGATC	300
CCAATACCTC CAGCAATCCA AACCTGATTT TCTCGTCCTT CTTCTATGAT CATGTGTCCG	360
TAAGCTCTGT CTAGGTTTAC TTTGCTGCCG GCTTGAAGAT TATCATAGAT ATTCTTGGTA	420
TGGTCGCCCTG AAGTTTAAAC AGTAAAGTAA AGAGTTTGAC CATGACCTCC TGAGATAGAA	480
AAGGGATGCG GAGCACTTTC AAAGCCTTCT TGGAAAATCT TTAGAAAGGC AAATTGTCCT	540
GATTGATAGT TGAAAGGTCT GCTAAGATGG ATTTGAATTT CTCTAGTATC GTGATTTAAG	600
CGTTTGAGAT GGGTAATTTT CCCTAGATAG GGGAAAGGAAA TCTTTTGATA TAGAAAAATG	660
ATATAAAAAC CAGCTAGTAA GCCTAAAAGG GCATAGCTAC CAACAAGAAA ACTTAGAAGA	720
TTAAATGTAA GGAGACGATT GCCCATTATC ATGTAGATGT GAAAGAGTCC TAAATATAG	780

467

GCTAGGTAAA CCAGGCGGTG AATCCATCGC CAAGCTTCGT ATTGGATGTA TTTGCCATAA	840
TAGGCGACAA GGATGATGCT GGCAAAGATA TAGATGGCAA GATTGCCAAA CTGAGCAGCT	900
AAGCGAGAGC CCCACAAACC GCCCATACTA AAGTTATGAA AGATTAGTAG GATGATGAG	960
AGAAAGGCTG TGAATTTGTG GACGGTGTAG ACCTTCTCCA AACTGTGAAA CCAGCTTTCT	1020
AGTAGTGGGA GACGAGTGGC TAGGATAAAA GTCAGAGATA GGCTTGTTAA AGCTAGTCCT	1080
GGAATCATGA ATTGGGGAGA AGTGTTCATC CAAGTCAAAA GAGTCAAGAT AAAACTAGCT	1140
ATGATAAAGA GTAGTCCTTT GACTGATTTT ATAGAAAAT CCATTTCATT TAGATTTCGA	1200
TTTGTGTGTA ATAAATTTGT TACATTTTAT CATAGAAAAT GTATGGTGTG AAATTGAGGT	1260
CTATAAATAT CTACTCTCAT CAAAAAATC TCCAATTGAA CTGGAGAGTG GCTGTTTATA	1320
CTCAATGAAA ATCAAAGAGC AAACTAGGAA GCTAGCCGCA AGTTGCTCAA AACACTGTTT	1380
TGAGGTTGCA GATAGAGCTG ACGTGGTTTG AAGAGATTTT CGAAGAGTGT TATTCTGCAG	1440
CTTGTTGCCA ACGTTTGGCT AGCATATGAG ACAGGCTAGA AATTGCTAGG TTAAAGCTGA	1500
AGTAGATGAG GGCAATCAGG ATGTAAAGAC TGAAGACCTG CTCTGGTTCG AAATAACGGC	1560
CCATGAGAAT TTGGCTGGCT CCAAGAGTT CTGTAGGGC GATAACAGAG TAGAGGAGAC	1620
TGGTATCCTT AATCACGTA ACAAATGAG AAATGATGGC TGGTAGCATT TTGCGGATGG	1680
CTTGTTGGAG AATGATGTAG TAGAGGATTT GGGCTGAGGT GAAGCCTTGT GACATTCCTG	1740
CTTCGTACTG TCCCTTGTCT ACGGCATTGA GACCGCTCG AATAATCTCA GCCAAGGCTG	1800
CTGATGTAAG GAGAGTAAAG GCTGTAATAC CTGCTGGTGT GGATTTCATT TTGAACACCA	1860
AAAAGATAGT AAAATCCAG AGAAGGTTGG GAACGTTGCG CACAACTCG ATATAAATAC	1920
TGGAATAAT GCGTAAGACA GGATTTTGC CATTTCTCGT GACAGCTAGC ACCGTACCGA	1980
TGATAGTAGA GAGGATGATG GCAATCAGAG AAATATAGAG GGTCAAGCCA AATCCTTTAA	2040
AGATAAAGAC TAGGTATCTT GGGGTTAAAA CTCTAAAAT AGATTCCATA GTAACTCCT	2100
AAAGTGAATA GGCTTTTTTG TTGGCTTGCT CCATCTTGC ACCAACTGG GCAACAGGGA	2160
AGCATAGAGC AAAGTAGAGA AGAGCAGCAC CTAAAAAGGC TGGTATATAG TTTCCGTTGA	2220
GAGCCGACCA AGACTTAGTC ACAAACATCA AGTCTACTCC AGAGATGATA GCTACAGTAG	2280
AGGTGTTCTT GATGAGGTTA ACAATTTGGT TGGTCAATGG AGGGAGAATG ATGCCGAAGG	2340
CCTGAGGCAA GATAATCAAG CGCATGGCAC TGATATAGGT AAAACCTTGC GACAAGCGG	2400
CCTCCATCTG ACCACTAGGA ATAGACTGAA TCCCTGAACG AATAACCTCA GCGATATAAG	2460
CGCCGTGATA GAGTCCACG CAGAGAACGG CTGTCCAATA AATTGGAATC ATGATGATAT	2520

468					
GGTCACTGAT	AAGAGGTAGG	CCATAAAAAA	CAATAACAAA	CTGCACCAAG	AGGGGAGTAT 2580
TTTGGTAAAA	TTCAACAAAG	ATGCGAGCTA	AAATGCGTAA	AATTGGACGT	TACTGGTTG 2640
ACATGGCACC	AAAGAAGATG	CCCCAAACCA	TAGCGAGGAT	AAAGGAACCA	ACCGCTAGGG 2700
CAAGGGTGAA	GAGGAAACCA	TTGAAAAATT	GTCCAAAATC	CTGAAAATAG	GCTGTCCAAG 2760
ATGATAAATC	TGTCATGGGG	TGTCCTCCTT	AATCTGCAGT	ATGGCTAGAT	GGTTTGAGCT 2820
TGTAACGGTC	ATAAAGTTTC	TGCAAACTAC	CATCCTTGCT	CCATTTAGTA	ACCAAGTTAT 2880
CAAGATAGTC	GTTGAGCTCT	GTATTTGATT	TCTTGGTAAC	AATACCGTAG	TCAGATGGCT 2940
TGAAACTATC	ATCTAGTAGT	GCTGTCCGTT	TACTAGTGTA	GCCAGATAGA	ATAGAGCGGT 3000
CAACGGAAAA	GGTATCGATA	CGATGAGCGT	GCAGGGAAGT	AATCAATTCT	GGGTAGGAAC 3060
CAAGTTCGAC	GAATTTAAAC	TTCAGACCTT	TCTTTTACC	CAGTTCAGTA	ATCAGGCGTT 3120
GGGTGATAGA	ACCTTGGGCG	ACTCCGATGG	TTTGGCCGTT	TAGGTCCTCA	ATCTTTTGA 3180
TTTTGGCAGA	TTTATTGACC	AAAAATCCAG	AAGCGTCTGT	GTAGTAGGGA	CTGGTAAAGT 3240
TGTAGAGTTT	TTTGGCTCG	TCCGTGATGG	TAAAGGTCGC	GATATCCATA	TCGACCTGTT 3300
CATTGTCTAG	AAGGGGGCCG	CGGGTTTGTG	CTGTAACCGG	CACATAGCGA	ATCTTGACCT 3360
TGAGTTCATC	AGCTACCATC	TTGGCCAAGT	CGGTTTCGAT	ACCAGAATAA	GTACCGGTCT 3420
TGGGATCTTT	GTAACCAAAA	TTGGGAACGT	CTTGTTTGAC	ACCGACAACC	AGTTCGCCTC 3480
TTTTTTGAAT	GTCTGCGATA	CTTGATCAG	CCTGGACTGG	TTTGGCAGCA	GCAAGGCCGA 3540
AAAGGCTAAT	CAATAATGCT	GATAAAAAGA	ATTTTTTTTC	ATAGGCGCCT	CCTTATTGTA 3600
CTTTGTCACT	TTCGTGGTTG	ATAATTTTGC	TGAGGAATTG	TTGGGCACGA	GGTTCGCTTG 3660
GATTGTCAAA	AAAGTTATCG	ACATCTGTCG	TATCTACTAA	AACCTCTCCG	TCGGCCATAA 3720
AGATAATGCG	GTCCGCAACC	TCTCGAGCAA	AGCCCATTTT	GTGGGTAAACG	ATGATCATGT 3780
TCATCCCATC	ATGCGCCAGT	TTCTGCATAA	CTGCTAGAAC	ATCTCCGATA	GTCTCAGGAT 3840
CAAGAGCAGA	TGTTGGTTCA	TCAAAGAGGA	GGAGTTCCGG	ATGCATAGCA	AGACCACGAG 3900
CGATGGCGAT	CCGCTGTTTT	TGTCCACCAG	ATAGCATGGC	GGGATAGGAA	TCTTCTTTGT 3960
CCCACATATT	TACAAATTCC	AGATATTTTT	GGGCGGTTTT	TTCAGCTTCT	TTTTTATCAA 4020
TTCTTAGAAC	TTCAATGGGT	GCAAGCGTTA	CGTTTTCTAA	CACAGCTTTG	TGTGGATAAA 4080
GGTTAAAAATG	TTGAAAAACC	ATGCCGACTT	CCTTGCGAAG	AGGTACCAAA	TCTTCTTGGC 4140
TGGCACCAGC	AACTTGGTGC	CCATTGACTA	GGAGACTTCC	TTTGTCACAA	GTCTCTAAAC 4200
CATTGATCGT	ACGGATAAGA	GTGGACTTCC	CAGAGCCAGA	AGGTCCAAGC	AGGACAACAA 4260
CTTGTCCTTT	TTCAAAACGG	AGATTGATGT	TGCGGAATGC	GTGGTAGTCT	CCGTAATATT 4320

469

TTTCGACGTT TTTAAATTCT ACTAAAGCCA TGAGAGATCT CTATTGTGTT ATATTTTATA	4380
ACACGGTTCT ACAATAAAG AATGTTCTTG TCAAATCATA TCTGAAAAA TTCACTATAG	4440
TGAAATAAGA ACAGGAAAA TCGATCGGGA CAGTCAAATC GATTTCTAAC AATATTTTAG	4500
AAGTAGAGGT GTACTATTCT AGTTTCAATA TACTATAAAA TGTATAAAA AAGCAATCTG	4560
GATAGAGAAA ACGTCTAAAT CATGTTATAA TGAAGCAATA GAATTCCTAG AAAGAGTGGA	4620
TGTCTTTTTG ATAACACCTA CTTATGAATG GCAGTTTGCC CTGCAGGTAG AAGATGCGGA	4680
TTTTACAAAG ATAGCCAAGA AGGCTGGACT GGGTCTGAG GTGGCTCGGT TATTGTTTGA	4740
GAGAGGGATT CAGAACCAAG AAAGTCTGAA GAAGTTTTTA GAACCTTCCT TGGAGGACTT	4800
ACATGATGCT TATCTGCTCC ATGATATGGA CAAGGCAGTG GAGCGGATTC GTCAGGCTAT	4860
TGAAGAAGGG GAAATATTC TTGTTTATGG AGACTATGAT GCGGATGGCA TGACTTCGGC	4920
TTCTATTGTG AAGGAAAGTT TGGACAACCT TGGTGTGAG TGCCGAGTTT ACCTGCCAAA	4980
TCGTTTTACC GATGGCTATG GCCCTAATGC TAGTGTTTAT AAATACTTTA TCGAGCAAGA	5040
AGGGATTTC TTAGTTGTGA CGGTGGACAA TGGGGTTGCT GGTCATGAGG CTATTGCATT	5100
GGCTCAGTCT ATGGGAGTAG ATGTCATTGT GACAGACCAT CATTCCATGC CTGAAACCTT	5160
GCCAGATGCT TATGCTATTG TCCATCCTGA ACATCCAGAT GCGGATTATC CTTTTAAATA	5220
TTTGGCTGGT TGTGGAGTTG CTTTCAAGTT GGCTTGCGCC CTGTTAGAAG AAGTGCAAGT	5280
GGAATGCTT GATTTGGTCG CTATTGGAAC TATTGCAGAT ATGGTGAGTC TGACGGATGA	5340
AAATCGTATC TTAGTTCAAT ATGCTCTGGA AATGTTGGGT CATACCACGC GCATTGGTCT	5400
GCAAGAAATG CTGGACATGG CTGGGATTGC TGCCAACGAA GTAACAGAAG AAACGGTTGG	5460
TTTCCAGATT GCTCCTCGTT TGAATGCCTT GGTGCGCTTG GATGATCCCA ATCCTGCCAT	5520
TGATTTGTTG ACTGGATTG ATGATGAGGA AGCGCATGAG ATTGCCCTTA TGATTCACCA	5580
GAAAAACGAA GAGCGCAAGG AAATCGTTCA GTCTATCTAT GAAGAAGCCA AGACCATCGT	5640
GGATCCTGAG AAGAAGGTT AGGTCTTGGC CAAGGAAGGC TGAATCCTG GGGTTCTAGG	5700
AATCGTGGCT GGTGTTTTAT TGAAGAATT GGGACAGACA GTCATTGTTT TTAATATAGA	5760
AGACGTCGT GCCAAGGGCA GTGCTCGTAG TGTGGAAGCG GTCGATATTT TTGAAGCTCT	5820
GGATCCCAT CGAGACCTCT TCATCGCCTT TGGAGGTCAT GCAGGTGCAG CGGGTATGAC	5880
GCTGGAAGTT GAGCAACTCT CAGATTTATC TCAGGTTTTG GAAGATTATG TTCGTGAAAA	5940
AGGTGCAGAT GCTGGTGGCA AGAATAAGTT AAACCTAGAT GAAGAGTTGG ATTTGGAGGC	6000
ACTTAGCTTG GAAACGGTCA AAAGTTTGA ACGTTTAGCT CCTTTTGGA TGGATAATCA	6060

470

GAAACCTATT TTTTATATCA AGAATTTTCA GGTGAAAGT GCTCGTACTA TGGGGGCAGG	6120
TAATGCCCAT CTAAGCTGA AAATTTCCAA GGGTGAGGCG AGTTTGAAG TGGTAGCCTT	6180
TGGTCAAGGC AGATGGGCGA CAGAGTTTTC TCAAACCAAG AATCTAGAGT TAGCGGTAA	6240
ATTGTCGTGC AACCAATGGA ATGGCCAAAC TGCCCTCCAG TTGATGATGG TGGATGCGCG	6300
AGTGAAGGT GTTCAACTTT TTAACATTCG TGGAAAAAT GCAGTCTGC CAGAAGGTGT	6360
TCCAGTCTTG GATTTTCCTG GAGAACTGCC AAATCTTGCG GCTAGTGAAG CTGTTGTCGT	6420
AAAAACATT CCAGAGGATA TTACTCAGCT GAAGACCATT TTTCAGGAAC AGCATTTCTC	6480
TGCTGTCTAT TTCAAAAATG ATATTGACAA GGCTTATTAT CTGACAGGTT ATGGGACTAG	6540
AGATCAGTTT GCCAAATTGT ACAAGACTAT TTACCAGTTC CCAGAGTTTG ATATTGCTA	6600
CAAGCTGAAA GATTTGGCTG CATATCTTAA TATTCAACAA ATCTTGCTGG TCAAGATGAT	6660
TCAAGTATTT GAAGAACTAG GCTTTGTGAC GATAAAAGAT GGTGTGATGA CAGTCAATAA	6720
AGAGGCGCCA AAGCGGGAGA TAGGAGAAAG TCAAATTTAC CAAATCTCA AACAAACCGT	6780
TAAAGACCAA GAAATGATGG CGCTGGGTAC GGTGCAAGAA ATTTATGATT TTTTGATGGA	6840
AAAAGAGTAG AAGTTAGGAA AGAGTTGGGA AATCAACTCT TTTTGAAAA CAGACCTTCA	6900
TTTTGAAAAT CATCAAAAA ATGGTATAAT GGTAGGAAA GATTGCGCTG AAAGTATCAG	6960
AACTTTTAGA ATAAGAGGGT AGAATTGCCC TATAATCAAG ATAACTAAG ATTTTGAGG	7020
AAAAATGAGT AATATCAGTT TAACAACACT TGGTGGTGTG CGTGAGAATG GAAAAATAT	7080
GTACATTGCT GAAATGGAG AGTCCATTTT TGTTTGAAT GTAGGGTTAA AATATCCTGA	7140
AAATGAACAA TTAGGGGTCG ATGTGGTGAT TCCAAACATG GATTACCTTT TTGAAAATAG	7200
CGACCGTATT GCTGGGGTTT TCTTGACCCA CGGGCATGCG GATGCCATTG GTGCTCTACC	7260
GTATCTCTTG GCAGAGGCTA AAGTTCCTGT ATTTGGGTCT GAGTTGACCA TTGAGTTGGC	7320
AAAGCTCTTT GTCAAAGGAA ATGATGCCGT TAAGAAATTT AATGATTTCC ATGTCATTGA	7380
TGAGAATACG GAGATTGATT TTGGTGGGAC AGTGGTTTCC TTCTTCCCTA CGACTTACTC	7440
CGTTCAGAG AGTCTGGGAA TTGTCTTGAA GACATCGGAA GGAAGCATCG TTTATACAGG	7500
TGACTTCAAA TTTGACCAA CGGCTAGTGA ATCTTATGCA ACTGATTTTG CTCGTTTGGC	7560
AGAGATTGGT CGTGACGGCG TCCTGGCTCT CCTCAGTGAT TCGGCCAATG CAGACAGCAA	7620
TATTCAAGTG GCTAGTGAAA GTGAAGTTAG GGATGAAATT ACCCAAATA TTGCTGACTG	7680
GGAAGTTCGT ATCATCGTTG CAGCTGTTTC CAGTAATCTT TCTCGTATTC AGCAGATTTT	7740
TGACGTCGCG GATAAACAG GTCGACGTAT CGTCTTGACA GGATTTGATA TTGAAAATAT	7800
CGTCCGCACA GCGATTGCTC TTAAGAAGTT GTCTTTAGCC AACGAAATTC TTTTGATTAA	7860

471

GCCTAAAGAT ATGTCTCGCT TTGAAGACCA TGAGTTGATT ATTCTTGAGA CAGGTCGTAT	7920
GGGTGAGCCT ATCAATGGAC TTCGTAAGAT GTCGATTGGT CGCCATCGTT ATGTAGAAAT	7980
CAAGGATGGG GACCTAGTCT ATATTGCTAC GGCTCCGTCT ATTGCTAAAG AAGCCTTTGT	8040
TGCGCGTGTG GAAAATATGA TTTATCAGGC AGGTGGGGTT GTCAAATTGA TTACCCAAAG	8100
TTTACATGTA TCAGGGCACG GAAATGTGCG TGATTTGCAG CTGATGATCA ATCTTTTGCA	8160
ACCTAAGTAC CTCTTCCCTG TCCAAGGGGA GTATCGTGAG TTGGATGCTC ACGCTAAGGC	8220
TGCCATGGCA GTTGGGATGT TGCCAGAACG CATCTTCATT CCTAAAAAGG GGACGACCAT	8280
GGCTTACGAG AATGGAGACT TTGTTCCAGC TGGATCGGTT TCAGCAGGAG ATATCTTGAT	8340
TGATGGGAAT GCCATTGGTG ATGTTGGAAA TGTGTTCCTT CGTGACCGTA AGGTCTTGTC	8400
AGAGGATGGA ATTTTCATCG TGGCTATTAC AGTCAACCGT CGTGAGAAGA AAATTGTGGC	8460
TAGGGCTCGT GTTCACACGC GTGGATTGTG TTATCTCAAG AAGAGTCGCG ATATTCTCCG	8520
TGAAAGTTCA GAATTGATTA ACCAAACGGT AGAAGAGTAT CTTCAAGGAG ATGACTTTGA	8580
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CAAGCGTCGC CCAGCCATTT TACCAGTAGT CATGGAAGCA AAATAATCGT TGAATAAAC	8700
AGAGAGAAAG TCGAGTTTCG GCTTTTCTT ATAGAAAAAT AGAAGGAGAA AATCATGGCA	8760
GTGATGAAAA TCGAGTATTA CTCACAAGTA TTGGATATGG AGTGGGGGGT GAATGTCCTC	8820
TACCTGTATG CCAATCGAGT GGAAGAACCA GAGTGTGAAG ATATTCCCGT CTTGTACCTT	8880
TTGCACGGGA TGTCTGGAAA TCATAATAGT TGGCTTAAGC GGACCAATGT AGAACGCTTG	8940
CTTCGAGGAA CTAATCTCAT CGTTGTTATG CCCAATACCA GCAATGGTTG GTACACCGAT	9000
ACCCAGTATG GTTTTGACTA CTACACGGCT CTAGCAGAGG AATTGCCACA GGTCTGAAA	9060
CGCTTCTTCC CTAATATGAC GAGCAAGCGT GAAAAGACCT TTATCGCTGG TCTTCTATG	9120
GGAGGCTACG GCTGCTTCAA ACTGGCTCTT ACGACAAATC GTTTTCTCA TGCAGCTAGT	9180
TTTTCAGGTG CCCTCAGCTT TCAAACTTT TCTCCTGAAA GTCAAATCT GGAAGTCCA	9240
GCCTACTGGA GAGGTGTTTT TGGAGAGATT AGAGACTGGA CAACTAGTCC CTATTCTCTT	9300
GAAAGTCTGG CTAAAAATC GGATAAAAAG ACCAACTTT GGGCGTGGTG TGGCGAACAG	9360
GATTTCTTGT ACGAAGCCAA TAATCTCGCA GTGAAAAATC TCAAAAACT AGGTTTGTAT	9420
GTGACCTATA GCCATAGCGC TGGAACCTAC GAGTGGTACT ACTGGGAAAA ACAATTGGAA	9480
GTTTTTTTAA CAACCTACC AATTGATTTC AAATTAGAAG AGAGACTGAC TAGTTTGAA	9540
CTTCAGCATA GGGGAGTAG AACTAAAATA AAATATGTTT TCACTAGACT TTTCAAACGm	9600

472

AAGTAGTAGA ATAGTAATAA AATACTGGAG GAAAGAGAGT AGGAAATGTA CCGTTATCAA	9660
ATTGGCATTTC CCACATTAGA ATATGATCAG TTTGTCAAAG AACATGAATT AGCCAATGTA	9720
TTACAAAGTA GTGCTTGGGA GGAAGTTAAG TCTAATTGGC AACATGAGAA GTTTGGTGT	9780
TACAGGGAAG AAAAATTACT GGCACAGCT AGTATTTTGA TTAGAACTCT TCCGCTAGGC	9840
TATAAAATGT TTTACATCCC AAGAGGACCT ATATTGGATT ATGGGGATAA AGAACTCTTG	9900
AATTTTGCCA TTCAGTCTAT TAAGTCCTAT GCTCGCAGTA AGAGAGCGGT TTTTGTGACT	9960
TTTGACCCAA GTATTTGCCT ATCTCAAAGT TTAATCAATC AGGAAAAGAC AGAATTTCTCT	10020
GAAAATCTGG CTATTATTGA TAGTTTGCAA CAAATGGGAG TAAGGTGGTC AGGAAAAACG	10080
GAGGAAATGG GAGACACCAT TCAACCTCGT ATTCAGGCGA AAATATACAA GGAAAATTTT	10140
GAAGAAGATA AACTTTCCAA GTCAACAAA CAGGCTATTC GAACAGCACG AAACAAAGGG	10200
CTTGAGATTTC AATATGGTGG ACTGGAATA TTAGATTCTT TTTGAGATT GATGAAAAA	10260
ACTGAGAAGC GAAAAGAGAT TCATTGAGG AATGAAGCCT ATTATAAAA ATTGTTAGAT	10320
AATTTTAAGG ACAAGGCCA TATCACCTTG GCCACCTTGG ATGTTTCTAA ACGTTGCGAA	10380
GAGTTAGAAG AACAGTTAGC GAAAAATAGA GCCTTGGAAG AGACCTTTAC TGAGTCGACT	10440
CGAACTTCAA AAGTAGAAGC GCAGAAGAAG GAAAAAGAAC GTTTGTTAGA GGAATTGACC	10500
TTCTTGCAAG AATATATAGA TGTAGGTCAA GCGAGAGTTC CTTTAGCGGC TACTTTGAGT	10560
TTGGAATTTG GTACTACCTC TGTCAATATA TATGCTGGTA TGGATGATGA TTTTAAACGT	10620
TACAATGCAC CAATTTTAAC TTGGTATGAA ACGGCTCGCT ATGCCCTTGA ACGAGGTATG	10680
ATCTGGCAAA ATTTAGGTGG TGTGAAAAC TCTCTCAATG GTGGACTTTA TCATTTTAAG	10740
GAAAAATTTA ATCCAACGAT TGAAGAATAC TTGGGTGAAT TTACAATGCC CACTCATCCT	10800
CTCTATCCTC TGTTAAGACT TGCTCTTGAT TTCCGTAAAA CATTAAAGAA AAAACATAGA	10860
AAGTAAGTAT ATGGCACTAA CAACACTCAC GAAAGAAGAG TTTCAGACTT ATTCTGATCA	10920
GGTTTCTTCT CGTTCCCTTA TGCAATCTGT CCAGATGGGG GATTGCTAG AAAAAAGAGG	10980
GGCTCGAATT GTTTATCTTG CTTTGAAACA AGAAGGAGAA ATTCAAGTTG CAGCTCTGGT	11040
TTATAGCCTG CCCATGCTGG GTGGTCTGCA TATGGAATC AATTCGGGGC CGATTTATAC	11100
CCAACAAGAT GCTCTTCCAG TTTTATATGC AGAGTTAAAA GAATATGCCA AGCAAAATGG	11160
TGTATTAGAG TTGCTTGTA AACCCTATGA AACTTATCAA ACTTTTGATA GCCAAGGTAA	11220
TCCAATAGAT GCTGAGAAAA AAAGTATTAT TCAAGATTG ACTGATTTAG GTTATCAATT	11280
TGATGGCTTA ACAACAGGTT ACCCAGGTGG AGAACCAGAT TGGTTATACT ATAAAGATTT	11340
AACTGAATTA ACTGAAAAGA GTTTGCTTAA AAGTTTATAG AAAAAAGGTA AACCTTGGT	11400

473

GAAAAAGGCT GAAACCTTTG GCATTCGGTT GAAAAAGTTA AAACGTGAAG AACTATCGAT	11460
TTTTAAGAAT ATAACAAAAG AACCTCTGA ACGTAGAGAA TATAGTGATA AAAGTTTAGA	11520
ATATTATGAG CATTTTATG ATACTTTTGG AGAACAAGCG GAGTTTCTCA TAGCAAGCTT	11580
AAATTTTTCG GACTATATGA GCAAATTGCA AGGTGAACAA AGTAACTAG AAGAAAACCT	11640
GGACAAAGTG CGACTTGATT TGAGTAAAA TCCTCATTCT GAGAAAAAAC AAAATCAACT	11700
GAGAGAATAT TCTAGTCAAT TTGAAACGTT TGAAGTTCGA AAAGCAGAAG CGCGAGACTT	11760
GATTGAAAA TATGGAGAAG AAGATATTGT TTTAGCTGGG AGTTTATTTG TTTATATGCC	11820
TCAGGAAACG ACTTATCTCT TTAGTGGTTC CTACACTGAG TTTAATAAGT TCTATGCCCC	11880
TGCACTGCTT CAAAAATATG TTATGTTGGA AAGCATAAAA CGTGGAATAC CTAATACAA	11940
CTTCCTAGGC ATTCAAGGGA TTTTGTATGG AAGTGATGGT GTTTTGCCTT TTAACAGAA	12000
TTTTAATGGC TATATTGTAC GCAAAGCAGG TACTTTCCGT TACCATCCAT CGCCTTTAAA	12060
ATACAAAGCT ATCCAGTTAC TCAAAAAAAT AGTAGGACGT TAAGATGAAA AAGTCAGTAT	12120
TTAGATTCTT TTTAGCTTCT TTTAGTAAAA TAATCTTAT TTGCTAGAAA GGTGGAGAGA	12180
CATGCGCTGG CTTTTTCGTT TGATAGGGGC TTTCTTTTCT TTTGTGTGGC GTTTGTTTTG	12240
GCGTCTGGTT TGGATAGTTG TGCTCTTATG TGTGCTGCT TTCGGACTTC TCTGGTATCT	12300
GAACGAGAT TTTCAAGGAG CGCTAAAGCA AGCAGAACGG TCAGTAAAA TGGTCAACA	12360
AAGTATTGAC CAATGGGAGA AAACAGGGCA ACTGCCTAAG TTAAGCCAGA CAGATAGTCA	12420
CCAGCATTCT GAAGGAAGGT GGGCACAGGC CTCTGCTCGT ATTTACCTGG ATCCGCAGAT	12480
GGATTACACG TTTCAAGAGG CTTATTTAGA AGCAATCCAG AACTGGAATC AAATGGTGC	12540
TTTTAACTTT GAACCTGTGA CTGAGTCTAG TAAGGCGGAT ATTACGGCTA CGGAGATGAA	12600
CGACGGAGGC ACTCCTGTGG CAGGAGAGGC GGAAAGTCAA ACTAATCTCT TAACAGGGCA	12660
ATTCTTGTCC GTAACGGTGC GGTGAATCA TTATTATTTG TCCAATCCAT ACTATGGCTA	12720
CTCCTATGAA CGCCTTGTCC ATACGGCAGA ACATGAGTTA GGTCAATGCGA TTGGCTTGGA	12780
CCATACAGAT GAGAAGTCTG TCATGCAACC AGCAGGTTCC TTTTATGGTA TCCAGGAAGA	12840
GGATGTTGCA AACCTCCGAA AAATATATGA GACTAGTGAG TAGGGTACTA TCTTTCCCTA	12900
CTTTTTTTGC TATAATGGAA CTATGAACAA CTTGATTAAA TCAAACTAG AGCTCTTGCC	12960
GACCAGCCCT GGTGTCTACA TTCATAAGGA TAAAAATGGC ACCATTATCT ATGTAGGAAA	13020
GGCTAAAAAT CTGCGTAATC GAGTACGGTC CTATTTTCGT GGAAGTCATG ATACCAAGAC	13080
AGAGGCTCTG GTGTCTGAAA TTGTGGATTT TGAATTTATT GTTACGGAGT CTAATATTGA	13140

474

GGCACTTCTC	CTAGAAATCA	ACCTGATCAA	GGAAAACAAG	CCCAAGTACA	ATATCATGCT	13200
CAAGGATGAC	AAGTCCTATC	CTTTCATCAA	AATCACCAAT	GAGCGCTATC	CACGCTTGAT	13260
TATCACTCGT	CAGGTCAAAA	AGGACGGAGG	TCTTTATTTT	GGACCCTATC	CCGATGTGGG	13320
GGCAGCCAAT	GAAATCAAGC	GGTGTCTGGA	TCGGATATTC	CCTTTTCGTA	AGTGTACCAA	13380
CCCGCCCTCT	AAGGTCTGTT	TTTATTACCA	TATCGGCCAG	TGTATGGCCC	ACACCATCTG	13440
TAAGAAGGAT	GAGGCTTATT	TCAAGTCTAT	GGCCAGGAG	GTGTCTGATT	TTCTGAAAGG	13500
TCAGGATGAC	AAAATCATCG	ATGATCTCAA	GAGTAAATG	GCAGTAGCAG	CACAAAGTAT	13560
GGAGTTTGAA	CGTGC GGCGG	AATACCGTGA	CCTGATTGAG	GCTATTGGAA	CGCTTCGAAC	13620
CAAGCAACGG	GTCATGGCGA	AAGATTGCA	AAATCGCGAT	GTCTTTGGCT	ACTATGTGGA	13680
TAAGGGCTGG	ATGTGTGTGC	AGGTTTCTT	TGTCCGTCAG	GTAAGCTCAT	CGAGCGCGAT	13740
GTCAATCTCT	TCCCTACTT	CAATGATCCA	GATGAGGATT	TTTTGACCTA	TGTAGGACAA	13800
TTCTATCAAG	AAAAATCTCA	TCTAGTTCCC	AATGAGGTAC	TGATTCGCA	GATATTGACG	13860
AAGAAGCTGT	CAAGGCTTTG	GTGGATTCCA	AGATTCTTAA	GCCTCAACGT	GGAGAGAAAA	13920
AACAACCTGGT	CAATCTAGCC	ATAAAAAATG	CTCGTGTAG	TCTAGAGCAG	AAGTTCAATC	13980
TGCTAGAAAA	ATCTGTCGAA	AAGACTCAAG	GAGCTATTGA	AAATCTAGGG	CGTTTGCTCC	14040
AAATCCCGAC	CCCAGTACGT	ATCGAGTCCT	TCGATAACTC	TAATATCATG	GGAAGTAGCC	14100
CTGTTTCGGC	TATGGTGGTC	TTTGTC AACG	GTA AACCGAG	TAAGAAGGAT	TACCGTAAGT	14160
ACAAGATAAA	AACGGTTGTT	GGACCAGACG	ACTATGCCAG	CATGAGAGAG	GTCATTGCGA	14220
GACGCTATGG	TCGAGTACAG	CGTGAGGCTT	TGACTCCTCC	AGATTTGATT	GTGATTGATG	14280
GGGGGCAAGG	TCAAGTCAAT	ATCGCTAAGC	AGGTTATCCA	AGAGGAACTG	GGCTTGATA	14340
TTCCAATTGC	TGGGCTGCAA	AAGAATGATA	AGCACCAAAC	CCATGAATTG	CTCTTTGGAG	14400
ATCCGCTTGA	GGTGGTGGAT	TTGTCTCGCA	ATTCTCAGGA	ATTTTTCCTC	CTCCAACGCA	14460
TCCAAGATGA	GGTGACCGC	TTTGCTATCA	CTTTCCACCG	CCAAGTGC GC	TCCAAAAATT	14520
CTTTCTCATC	TCAATTGGAT	GGGATTGACG	GTCTGGGACC	TAAACGCAAG	CAGAATCTTA	14580
TGAAGCATTT	CAAGTCTTTG	ACCAAAATCA	AGGAAGCCAG	TGTGGATGAG	ATTGTGGAAG	14640
TTGGGGTACC	TAGAGTCGTT	GCAGAGGCTG	TGCAAAGAAA	GTTGAACCCG	CAGGGAGAAG	14700
CCTTGCCTCA	AGTAGCAGAA	GAAAGAGTAG	ATTACCAAAC	GGAAGGAAAC	CACAAATGAAC	14760
CATAAAATCG	CAATTTTATC	AGATGTTTAT	GGCAATGCGA	CGGCGCTAGA	AGCAGTGATT	14820
GCAGATGCTA	AAAATCAAGG	GGCCAGTGAA	TATTGGCTTC	TGGGAGATAT	TTTCTTCCCT	14880
GGTCCAGGCG	CAATGACTT	AGTCGCCCTG	CTAAAGGACC	TTCCTATCAC	AGCAAGTGTT	14940

475

CGAGGCAATT GGGATGATCG TGTCTTGAG GCTTTAGATG GGCAATATGG CTTAGAAGAC	15000
CCACAGGAAG TTCAGCTCTT GCGTATGACA CAGTATTTGA TGGAGCGAAT GGATCCTGCA	15060
ACGATTGTCT GCGTACGAAG CTTCCTTTG CTGGAAGA AAGAAATTGA CGGATTGCGC	15120
TTTTCTATCT CTCATAATT ACCTGACAAA AACTATGGTG GTGACTTGCT AGTTGAGAAT	15180
GATACAGAGA AATTGACCA ACTGCTAGAT GCGGAAACGG ACGTGGCAGT TTATGGTCAT	15240
GTTCACAAGC AGTTGCTTCG TTATGGAAGT CAAGGGCAAC AAATCATCAA TCCAGGGTCG	15300
ATTGGCATGC CCTATTTTAA TTGGGAGGCG TTAATAAATC ACCGTTCCCA GTATGCCGTG	15360
ATAGAAGTTG AAGATGGGA ATTACTCAAT ATCCAAATTC GTAAAGTTGC TTATGATTAC	15420
GAAGCTGAGT TAGAATTGGC CAAGTCCAAG GGGCTTCCCT TTATCGAAAT GTATGAAGAA	15480
CTGCGTCGTG ACGATAACTA TCAGGGGCAC AATCTGGAAT TATTAGCCAG CTTAATAGAA	15540
AAGCATGGGT ATGTAGAGGA TGTGAAGAAT TTTTGTGATT TTTTGTAGA GTTTCCTAAA	15600
ATAGCCAATG CAAACTAAAA AAGCGATTG CTGGTCCAAT CGCTTTTAGT ATATCTTATA	15660
CTCAATGAAA ATCAAAGAGC AAAC TAGGAA GCTAGCCGTA GGTGCTCAA AGCACAGCTT	15720
TGAGGTTGCA GATAAAGCTG ACGTGGTTG AAGAGATTTT CGAAGAGTGT TATTGTAAT	15780
GAGATTGATC TGGGAGGTAA GAACCACCTA GATAGGTATT GCTGAGTTT TCAAGGGTTC	15840
CGTCTTGATA GAGTCTTTG AGCGCTTTAT CAAATTGCTC TTTAACTCT TTTTGGTCGC	15900
TTGAGAAAAT GATATAATTG CTGGGGCTAT CTGCAGAAGG TAAATCAACG ACTGAGAGGT	15960
CTAAACCACG GTCCTTGATA ATCTTTTGAA CGGATACCTT GTCAAAACT AGGAAATCAA	16020
ACTCTCCGTT AGCAAGGTCT AGGATTCGTT TACCAATATC CTCACCAGAA AAATTAATTG	16080
TAGCGGGATT ATCAGTGTGT TTCTGATTCC AGTTATTGAT GAATTGAGCG TTAGAAGTTC	16140
CGGTATCCTC TTGTGTTGTT TTACCAGCGA TCTGGTCAAG AGAAGTCAAA GGATTTTCT	16200
TGTTGCTGAC AAGGACGAGG GGATTGTTGG AAATTGGAAG CGAGTAAAGG TATTTTTCAG	16260
CACGCTCTTT TGTGTAACTC AAGTTATTGG CCGCAGCCTG ATAGTGACCA GAATCAAGTC	16320
CTGGGAAGAT GCTCTCCCAG GCGGTTCTTT GGAATTGAAT CTCGTAGTCG CTGAGTTTCT	16380
CATCTACTGC CTTTAAACT TCGATATCAA AGCCTGTCAG ATTGCCCTTG TCTTCGTAGT	16440
CAAATGGTGG CACGTCGCCA GCTGTAGCAA GGACGATTGT CTTTGTAGCG CTAGTCTCTT	16500
TGGGTGTAGC TTGATTCTCA CAGGCAACCA AAAATGGTAG GATAGCTAGT AATAGGCTAA	16560
ATTTTTCAT ACTGTCTCCA TTCAAATGTA AAG	16593

(2) INFORMATION FOR SEQ ID NO: 53:

476

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3510 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

GGGATATCCT TATATCCTTG TTCCTGGAAC CATTGTGGGA ATTGCTCAAC AGTTTTTTCA	60
CCTTGAATTC CTGGTGCAAT GACAGTAAGA ATTCGAAAT CACGATCTGG TTTCGCCGCT	120
AGTTCCATCA ACTCTGGCAT ACTTTTCTTG CATGGACCAC ACCATGAAGC CCAAACTTC	180
AAGTAAACCT TTTTACCCCT AAAATCAGAT AACTTAACTT CTTTGCCATC CATGGATTGC	240
AATGTGAAGT CTGGAGCATC TTTTCCAACA GCAATTTGTT GTACAGTCGT TTGTTGTTTT	300
GGCTGTGTG CTGCTTGAGT CTTTTAGTT TCTTCCTCAC CACAGGCCAT CAATACAAC	360
AATGACAAGA GACTTAAGCC AGCAAACATT ACTTTTTTCA TTGTCTCTCC TTTATTCAAA	420
AATTCAGCT AGAACATTTA CTGTCTCTAA TAGTAACAAA ATTCCCATTA AAACAATGAG	480
GAAACCACCA ATTTTCTTTA GTAGCATCAT ATGACGCTTG ATTTTACTAA AATATGGCAT	540
GACTAGACCT GAAGCTAGTG CCAATACCAA GAAAGGAAGG GCCATGCCaG AGTGTAATG	600
AGAGTATAAA TCGCTCCTTG CCAAGCGCCA TTGCCTCCAG AAGCCGAAG TGCTAAACA	660
GAACTTAAAA CTGACCAAT ACAAGGTGTC CAACCAAAGC TAAAGGTAAT ACCAAGTAAA	720
AAAGCTGACC AATAACGATT AGAATCTGAT TTTTAAAGG TAAACTTTT TTGAACTTCT	780
AATTTCTTCA AATGAAAAAT TTCCATCTGG TGAAGACCA AAATGATAAT AATAGCTCCC	840
ATGCCATATC GAAACCAATT TGCATAGAGA ATATGACCAA AGTAACCAGC ACCAAAGCCT	900
AGAATAAAGA AAATGAGAGA GATACCAGCG ATAAAGCAAA GTGTTGGAAT CAAGCCTGAC	960
CAGAGAACCT TTCTCCCAA CAAAGAAAAG CTTTTTGAC TTTCTTGATC ATCCAATAAA	1020
ATCCCAGCAT AGACTGGCAG AAGAGGAAAA ATACAAGGAG AAAAAAGGA TAAACACCT	1080
GCTAGAAAA CAGAGATTAA AAATACTATC GTTTCCAATA AAGAACCAAC TTTCTTAATA	1140
ATTCTAATCC TATTTTACTA TATTCATTT TATTTGTAAG CTTTCTGCTA CGCAAATCG	1200
TATCGGCAC TATTGGACCA ATCTTTTCTT TTGCTAGTCA AGGCGGATCT TATCCCCAA	1260
AATAGCCAAA AAGCAACGAC AAGGATTACT CATCGTGCT TTTGTGAACG AAAATGTCTT	1320
TTAGGTCTGA CATTCATAA ATCATGTTTT ACTTGAGTT GTCAAGGATT GCTTTAAGCT	1380
CCTCTACTAG TTTAGTTTCT GTCTCTGCTG AGCCATTTTC TTCTTTCACG AAATCAAGGG	1440
TTCTTGGAG AAGGTTTGG GCTTTGGCAA GGACTTTTTT ATCCGCTTTT TCTGCATCTA	1500

477

GCTGTCCTAG AACCTTGATC AATTCCGTGC TTAATTGCTG GATTTCTGAC TCTTCTTAC	1560
GGCGAATCAG CCAGAAGGCA ATCACGCCA GGAGGGCAAG TAGACTGACC ACAATCACTC	1620
CTGCCGGAAC TGAGTTTGTT TCAGTCATCT TATCTGAATC CTTACTATCT TCCGTTCCCT	1680
GTTTTGCATC CTTCTTGCTC TGTGCAGGCT TGCTGTCGCT AGCATTGCT TTCACATCTT	1740
TGAGAGAGTC CAAGGCAGCC CAGCCTTAC AGACTCTACT GCAGTATGCA GACCTTACTC	1800
TGTCAAGGCA CTATCTCCG GAGCTTTTG AGCATCTAGG AGGACAGCCT TGGTTGCATC	1860
GATTTTCGGA TCAGATACTG TTGCCAAAGC TTTCAAGCGT TGGTCTAACT CTTGACTCAA	1920
GGCACGAAGT TCAGACTTGT CAACTTGCTC TTGAGCTTGT GTGCTCGTTG AGCTAGCCGA	1980
AGCGCTTGCT ACCACTCTAG GATCTTGAGT CGGAGCTGAG CTTGGAGCTG GGACAGGGCT	2040
TGCAGGTGTA CTAGGAACAG TTATGGTATA TTGAACTAG AATAGTACAT ATGGACTTCT	2100
AAAACATTGT TAGAATTCGA TTTTACTGTC CTGATCGATT TGCTCTATTC TTATTTTCAAT	2160
TTACTATAAT AACCGATGGT GTGGTTAATG TTGGTAAGAG AAACCTTCTGA AACCAAGCTT	2220
CAAAAAGTC GCTCGTCATC GTCTCTTCGT AAGTCATTGG AGCGATTAAT TCACCATTTG	2280
TTAGACCTGC AACCAAGAA ATCCTCTGAT ATCTTCTTCC AGATACTTTG CCTCTTATTA	2340
ACTGACCTTT TAATGAGCGA CCATATTCTC GATAAAAATA AGTATCGAAT CCGTTTTCGT	2400
CAATCTAAAC AGGTGCTAGG TGCTTTAAAC TATTAAAATT CTTAAGAAAT AAGGCTACTT	2460
TTTCTGGGTC TTGTTCATAG TAGGTGTGGT TCTTTTTTTC GAGTGTAGCC CATAGCTTTG	2520
AGCGCATAGT GGATGGTAGT TGGATGACAG CCAAATCAG AAGCTATTTT AGTCAAATAA	2580
GCCTCTGGAT TGTCAGTAAG ATAGTTTTTA AGTCTATCTC TATCAACTTT TCTTGGTTTT	2640
GTTCCTTTTA CTTGGTGGTT TAGCTCTCCT GTTTTCTCTT TTAGCTTTAA CCAGCCATAA	2700
ATGGTATTAC GTGAGATTTG GAAAACGTGT GATGCTTCTG TTATACTACC TATTCGCTCA	2760
CAATAAGAGA GAACTTTTTT ACGAAAATCT ATTGAATATG CCATAAGAAG ATTATACCAC	2820
ATTGTGTACT ATTTTTGGTT CATTTCACTA TAACACAAAA TAGATTATTA TTACATAACA	2880
AAAAAGAGGT CTAAACCTCT TAACTCAATT ACTCCGCCAG TAGGACTCGA ACCTACGACA	2940
TCATGATTAA CAGTCATGCG CTACTIONCAA CTGAGCTATG GCGGATTAAA GCTAAGCGAC	3000
TTCCCTATCT CACAGGGGGC AACCCCAAC TACTTCCGGC GTTCTAGGGC TTAACCTCTG	3060
TGTTCCGCAT GGGTACAGGT GTATCTCCTA GGCTATCGTC ACTTAACTCT GAGTAATACC	3120
TACTCAAAAT TGAATATCTA TTCAATTTAA GAAAACCGTT CGCTTTCATA TTCTCAGTTA	3180
CTTTGGATAA GTCCTCGAGC TATTAGTATT AGTCCGCTAC ATGTGTCGCC ACACTTCCAC	3240

478

TTCTAACCTA TCTACCTGAT CATCTCTCAG GGCTCTTACT GATATATAAT CATGGGAAAT	3300
CTCATCTTGA GGTGGkTtCA CACTTAGATG CTTTCAGCGT TTATCCCTTC CCTACATAGC	3360
TACCCAGCGA TGCCTTTGGC AAGACAACTG GTACACCAGC GGTAAGTCCA CTCTGGTCCT	3420
CTCGTACTAG GAGCAGATCC TCTCAAATTT CCTACGCCCG CGACGGATAG GGACCGAACT	3480
GTCTCAGGAC GTTCTGAACC CAGCTCGCGT	3510

(2) INFORMATION FOR SEQ ID NO: 54:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20986 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

CGGAGAAAAA CATGGCTAAG TCAAACCTTG AAAAAGTAGA ATCAGTTGTT GGCTGGGTTC	60
GTGATAAGAA AATCACAGGC TACCGTATCT CTAAAGAAAC GAATGCGCGT GAAATGTCTA	120
TCATTGCTCT GCGCGAGGGT CGTGCAAAAG TAAAAAATAT TTCATTTGAA ACAGCCCTAG	180
GCCTAATTGA TTTCTATGAA AAAAATTATG AAAAATTGA AGATTAATCT TTGGATAACG	240
GCGGATTCTT GACCTTCAAG TAGTAGAGAT AGAGAATCTG CCTTTTCATT TTGAGGACAG	300
CAAAAAGACT GCACGGTTGA TGCAGCCTTT TCTTTTATT TGAGATAGCG TTGAAGGAAC	360
TCTTTTGTTT GGTCTTCTTT AGGATTGGTG AAGAGGTCTT CTGGTTTACC TTCTTCAGCG	420
ATCACGCCCT TATCCATAAA GATAACACGG TGAGAGACAT CACGGGCAAA TTCCATTTC	480
TGGGTACGA CAATCATGGT CAAGCCTTCC TGAGCCAGGT CCTGCATGAT TTTGAGGACT	540
TCTCCAACCA TTTCTGGATC GAGAGCTGAT GTTGGTTCAT CAAAGAGAAT ACGTCCGGA	600
TTCATGGAGA GGGCAGGAGC GATGGCCACA CGTTGTTTTT GACCACCTGA GAGTTGTTTT	660
GGTTTGGCTT GCCAGTAGCG TTCTCCCATG CCGACCTTTT CCAGGTTTTC TTTGGCAATC	720
TTTTCAGCTT CTGTGCGTTC GCGTTTtagg ACAGTTGTCT GAGCGACGAT TGTGTTTTCA	780
AGAACATTGA GATTTTCAA GAGGTTAAAG GATTGGAAAA CCATCCCCAA CTTTTCACGG	840
TATTGCGTGA GGTCAATGCC TTTTTCGAGG ACGTTTGTG CATGATAAAG GATTGTCCA	900
TCAGTTGGTG TTTCAAGTAG GTTAATGGAG CGTAGGAAGG TCGATTTTCC GCTTCCAGAG	960
CTTCCGATGA TAGAGATGAC CTCTCCCTTG TGGACAGTGA GTGAAATGTC TTTTAGCACT	1020
TCGTTTGTG CATAGGATTT TTTGAGGTGT TTAATTTCAA GGATTGCTTG TGTCATTATT	1080
TCAAATCCTC CGTTTGCATT TGGTTAGCAC CTGTAGTGTA GGTATCCATG TCCATTCTGC	1140

479

GCTCGATAAA GCGTAGGATA CGTGTACGG TGAAGGTGAG GACAAAGTAA ATCACGGCGA	1200
TGATTGTAAA TGTCTGGAAG TATTGATAGG TTTGTGTTGC CACGGTATTT CCTGAGAAAT	1260
AAAGTTCGAC AACAGAGATA ACGTTCAATA CAGATGTATC TTTGATATTG ATGACAAATT	1320
CATTACCACT TGCAGGTAGG ATGTTACGGA CTACCTGAGG TAGGACAATC TTACGCATGG	1380
TCTGGTTATG GGTACATACCA AGAGCAGTCG CAGCTTCAAA TTGTCCCTTG TCAACTGCTA	1440
GGATACCACT ACGGACGATT TCAGTCATGT AGGCACCGGT ATTGATTGAA ACGATGAAGA	1500
TAGCAGCCAG TGTACGGTCA AGGTTGATCC CGAAAGCTTG GGCAGTTCCA TAGTAGATAA	1560
CCATCGATTG AACAAATCATT GCGGTACCAC GGAAATTTTC AATGTAGACA TTGAGAACCC	1620
AGCCGACTAG TTTTGTAGG CCGTAAATGA CTTTGTTC AGAGAGAGGA GCAGTACGGA	1680
AGACACCAAT GGCAAGTCCA ATAATGAGAC CTATGATGGT TCCGACGATA GAGATTAAAA	1740
GAGTGATACC AGCACCACGC AAGAGTTGTT GCCAGTTTC AGAAAGAATT TTAGCAACTT	1800
GGCTAAAGAA ACTACTGCTA GTCTCTCAG TTGTTGTAGC TTCGGCAGGT TGTTCCTTGA	1860
TCATACGATC CATCAAGGCA ACTTGGTCAT CTTTGTAAAT GGTTTCAATG CTGGCATTGA	1920
TTTGCTAAT ACGATTGTCA TTTTACGAA GCCCGATAGC GATAGCTGTA TCTTCTTCCC	1980
CAGTTTGTAA ACCAGGTTCT ACTTGAATCA TCTTGAATTT AGAGTTCGCA GCTTCAGCAG	2040
TCAGTGCTTC TGGACGTTCA GAAACATAAG CATCAATGAC ACCAGCCTCA AGAGCTTGTC	2100
GCATTGAGC GAAGTCTCCC ATGGCTGTTT CTTTTCAGC ACCTGGGATT TGTGCAATCA	2160
AGTTATAAAG GTAGACCCCT TGTGAGAAG TGATTTTGC ACCGTTAAAG TCATCCAAAG	2220
ATTTAGCACT TGCGTAGGCA GAATCTTTT TGACAAGCAA AACTGGTTCG CTAGTATAGT	2280
AACTGCTCGA AAAGGCAATT TCTTGTTCG GTTCTGCAGT TGGACTCATA CCTGCGATAA	2340
TCATGTCAAT CTTACCAGAA GTAAGGGCAG GGAAGTAGCC TTCCCACTTG GTTTTAACAA	2400
CCAAAGGTTT TTTACCTAAG TCCTTAGCGA TTTTCTTGGC GATTGGAACA TCGTATCCGT	2460
TGGCATACTG ATTTGGTCCCA TCGATTTTGA CAGCTCCGTT GCTATCATCA TCCTGGGTCC	2520
AGTTAAAGGG AGCATATGCT GCTTCCATAC CGATGCGTAA ATATTCATCG GCTTGAGCAA	2580
CATTGACAAG TCCTAGCATC AGCAAGAGAC TTGTGAAAAT AGATAAGTAY ATGTGGCTCA	2640
TGATTTCTCC TATTCTGATC TATTAAAAAA TAACGTCTC CTATTTTATC GAAAAATGCG	2700
TAATTTTCA ACATAAGTAA GTCTTTACTT ACGAAAAAAT GCTATAATGA TAAGAAAGAT	2760
AAAAAGGGG CTTAGTTGAT GAAAAAACT TTTTCTTAC TGGTGTAGG CTTGTTTGC	2820
CTTCTTCCAC TCTCTGTTT TGCCATTGAT TTCAAGATAA ACTCTTATCA AGGGGATTG	2880

480

TATATTTCATG CAGACAATAC GGCAGAGTTT AGACAGAAGA TAGTTTACCA GTTTGAGGAG	2940
GACTTTAAGG GCCAAATCGT GGGACTTGGA CGTGCTGGTA AGATGCCTAG CGGGTTTGAC	3000
ATTGACCCCTC ATCCAAAGAT TCAGGCCGCG AAAAACGGTG CAGAACTAGC AGATGTGACT	3060
AGCGAAGTAA CAGAAGAAGC GGATGGTTAT ACTGTGAGAG TCTATAATCC AGGTCAGGAG	3120
GGCGACATAG TTGAAGTTGA CCTCGTCTGG AACTTAAAAA ATTTACTTTT CCTTTATGAT	3180
GATATCGCTG AATTAAATTG GCAACCTCTG ACAGATAGTT CAGAGTCTAT TGAAAAGTTT	3240
GAATTTTCATG TAAGGGGAGA CAAGGGGGCT GAAAACTCT TTTCCATAC AGGGAAGCTT	3300
TTTAGAGAGG GAACGATTGA AAAGAGTAAC CTTGATTATA CTATCCGTTT AGACAATCTT	3360
CCGGCTAAGC GTGGAGTTGA GTTGCATGCC TATTGGCCTC GGACCGATTT TGCTAGCGCT	3420
AGGGATCAGG GATTGAAAGG GAATCGTTTA GAAGAGTTTA ATAAGATAGA AGACTCGATT	3480
GTTAGAGAAA AAGATCAGAG TAAACAACTC GTTACTTGGG TCCTCCCTTC GATCCTTTCC	3540
ATCTCCTTGT TATTGAGTGT CTGCTTCTAT TTTATTTATA GAAGAAAGAC CACTCCTTCA	3600
GTCAAATATG CCAAAAATCA TCGTCTCTAT GAACCACCAA TGGAATTAGA GCCTATGGTT	3660
TTATCAGAAG CAGTCTACTC GACCTCCTTG GAGGAAGTGA GTCCCTTGGT CAAGGGAGCT	3720
GGAAAATTCA CCTTTGATCA ACTTATTCAA GCTACCTTGC TAGATGTGAT AGACCGTGGG	3780
AATGTCTCTA TCATTTGAGA AGGAGATGCA GTTGGTTTGA GGCTAGTAAA AGAAGATGGT	3840
TTGTCAAGCT TTGAGAAAGA CTGCCTAAAT CTAGCTTTT CAGGTAAAAA AGAAGAACT	3900
CTTTCCAATT TGTTTCCGGA TTACAAGGTA TCTGATAGTC TTTATCGTAG AGCCAAAGTT	3960
TCTGATGAAA AACGGATTCA AGCAAGAGGG CTTCAACTCA AATCTTCTTT TGAAGAGGTA	4020
TTGAACCAGA TGCAAGAAGG AGTGAGAAAA CGAGTTTCCT TCTGGGGGCT CCCAGATTAT	4080
TATCGTCCTT TAACTGGTGG GGAAGAGGCC TTGCAAGTGG GTATGGGTGC CTTGACTATC	4140
CTGCCCCCTAT TTATCGGATT TGGTTTGTTC TTGTACAGTT TAGACGTTCA TGGCTATCTT	4200
TACCTCCCTT TGCCAAATACT TGGTTTCTA GGGTTAGTTT TGTCTGTTTT CTATTATTGG	4260
AAGCTTCGAC TAGATAATCG TGATGGTGTT CTAATGAAG CGGGAGCTGA GGTCTACTAT	4320
CTCTGGACCA GTTTTGAAAA TATGTTGCGT GAGATTGCAC GATTGGATCA GGCTGAACTG	4380
GAAAGTATTG TGGTCTGGAA TCGCCTCTTG GTCTATGCGA CCTTATTTGG CTATGCGGAC	4440
AAGGTTAGTC ATTTGATGAA GGTTTCATCAG ATTCAAGTGG AAAATCCAGA TATCAATCTC	4500
TATGTAGCTT ATGGCTGGCA CAGTACGTTT TATCATTCAA CAGCACAAAT GAGCCATTAT	4560
GCTAGTGTCT CAAATACAGC AAGCACCTAC TCTGTATCTT CTGGAAGTGG AAGTTCTGGT	4620
GGTGGCTTCT CTGAGGCGG AGGTGGCGGC AGTATCGGTG CCTTTTAAAG AGAGCTACCA	4680

481

TAGACTGAAA AAGTATGATA TAATGGAAGA TAGAAAAAAG ACAAACATA AGAAAAGTCA	4740
ATAGTTTAT CTAAACTATT TCTTATTTCA ATTTGATGAT TTGGCGATGA TTTTAGAGCA	4800
CGGCAAAAAG CCCTTGAAAA AGTCCATTTT TTCAAAGGTA ATCCTGTGTT AATTTCAGAA	4860
ATTACATCAC TTTTGTTCG TCAAATGGCA GCTCTTTTTT AGGATATAAA ACAGGGTTCG	4920
GATAAGTTT TTTGCAAGGT GGATGATGGC TACATTGTAA TGTTCCTT ATTCTAATT	4980
AGTCTTAAGA TAGGCCTTAG AAGCAGGTGA AAAGCGAGGG CATGCTTTGG CAGCTTGTAT	5040
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482

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483

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484

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485

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486

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487

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488

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AGATAAGGAC AATGAAAATG TTGTGAAATT AGTTTCTGAT GCACAAGGTC GCTTTGAAAT	19260
TACAGGCCTT CTGTCAGGTA CATATTACTT AGAAGAAACA AAACAGCCTG CTGGTTATGC	19320
ATTACTAACT AGCCGTCAGA AATTTGAAGT CACTGCAACT TCTTATTCAG CGACTGGACA	19380
AGGCATTGAG TATACTGCTG GTTCAGGTAA AGATGACGCT ACAAAGTAG TCAACAAAAA	19440
AATCACTATC CCACAAACGG GTGGTATTGG TACAATTATC TTTGCTGTAG CGGGGGCTGC	19500
GATTATGGGT ATTGCAGTGT ACGCATATGT TAAAAACAAC AAAGATGAGG ATCAACTTGC	19560
TTAAGTAAGA GAGAAAGGAG CCATTGATGA CAATGCAGAA AATGCAGAAA ATGATTAGTC	19620
GTATCTTCTT TGTATGGCT CTGTGTTTTT CTCTTGATG GGGTGCACAT GCAGTCCAAG	19680
CGCAAGAAGA TCACACGTTG GTCTTGCAAT TGGAGAACTA TCAGGAGGTG GTTAGTCAAT	19740
TGCCATCTCG TGATGGTCAT CGGTTGCAAG TATGGAAGTT GGATGATTCG TATTCCTATG	19800
ATGATCGGGT GCAAAATGTA AGAGACTTGC ATTCGTGGGA TGAGAATAAA CTTTCTTCTT	19860
TCAAAAAGAC TTCGTTTGAG ATGACCTTCC TTGAGAATCA GATTGAAGTA TCTCATATTC	19920
CAAATGGTCT TTAATATGTT CGCTCTATTA TCCAGACGGA TGCGGTTTCT TATCCAGCTG	19980
AATTTCTTTT TGAAATGACA GATCAAACGG TAGAGCCTTT GGTCAATTGTA GCGAAAAAAA	20040
CAGATACAAT GACAACAAAG GTGAAGCTGA TAAAGGTGGA TCAAGACCAC AATCGCTTGG	20100
AGGGTGTCGG CTTTAAATTG GTATCAGTAG CAAGAGATGT TTCTGAAAAA GAGGTTCCCT	20160
TGATTGGAGA ATACCGTTAC AGTTCTTCTG GTCAAGTAGG GAGAACTCTC TATACTGATA	20220
AAAATGGAGA GATTTTGTG ACAAATCTTC CTCTTGGGAA CTATCGTTTC AAGGAGGTGG	20280
AGCCACTGGC AGGCTATGCT GTTACGACGC TGGATACGGA TGTCAGCTG GTAGATCATC	20340
AGCTGGTGAC GATTACGGTT GTCAATCAGA AATTACCACG TGGCAATGTT GACTTTATGA	20400
AGGTGGATGG TCGGACCAAT ACCTCTCTTC AAGGGGCAAT GTTCAAAGTC ATGAAAGAAG	20460
AAAGCGGACA CTATACTCCT GTTCTTCAAA ATGGTAAGGA AGTAGTTGTA ACATCAGGGA	20520
AAGATGGTCG TTTCGAGTG GAAGGTCTAG AGTATGGGAC ATACTATTTA TGGGAGCTCC	20580

490

AAGCTCCAAC TGGTTATGTT CAATTAACAT CGCCTGTTTC CTTTACAATC GGGAAAGATA	20640
CTCGTAAGGA ACTGGTAACA GTGGTTAAAA ATAACAAGCG ACCACGGATT GATGTGCCAG	20700
ATACAGGGGA AGAAACCCCT GTATATCTTG ATGCTTGTG CCATTTTGTG GTTTGGTAGT	20760
GGTTATTGTC TTACGAAAA ACCAAATAAC TGATATTCAA TGTACATCAT TATGAATAGG	20820
ATAGCAGGCT GAAGGAAGA CCAGAGTACT CTGAGGTGAT GTTAATCAGG AATCATGGTG	20880
ATGTGGCATG AATCATCAAT AACGGATATG AGGCTGGGCA GATTGTGCCA GCCTCATTTG	20940
GGGTTATTGT TTGTAAACG ATAGGACTGG TCTGGTAATC ATTTTA	20986

(2) INFORMATION FOR SEQ ID NO: 55:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21040 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:

CCCAGCAAAA AGCCATCCGA AGATGACTTT TTTGCTATTT AATTTCGTGA TAAGTTACTT	60
CCAAGCCACG CTTAACAGCT GGACGATTGG CAATTTTTTC TGCCCATTTT ACTAGATTTT	120
GATAACTTGA GGCATCCAAG AATTTTGCAG AACCTTGGTA AAGATTTCCT TGAATAAAT	180
GTCCATACCA AGACCAGATA GCAATATCTG CAATCGTATA GTCATTGCCT GCAATATAAG	240
GTTTCTGAGC CAATTCCTTA TCCAATAAAT CCAACTGGCG TTTCACCTCC ATCGTAAAC	300
GGTTAATAGG ATATTCCAAT TTTTCAGGAG CATAATTGAA GAAATGTCCA AATCCCCCAC	360
CTAGAAAAGG TGCTGCACCT GCTTGCCAGA ATAGCCAATT CAAAACCTCT ACCTTTTCCA	420
CAGGATTACT TGGTAAAAAG GCTCCAAAT TCTCAGCAAG GTAAAGAAGA ATATGAGCAG	480
ACTCAAAGAC TCTTACGTTT TCAGTACCTG ACTGGTCCAA TAAGGCTGGA ATCTTGAAT	540
TTGGATTGAG CTTTACAAAG TCTGATCCGA ATTGATCCCC ATCCATGATA GCAATCTTAT	600
ACAAGTCGTA AGCCGCTTCC TTAAAACCAG CTTCTAGTAA TTCTTCCAAT AAGATAGTAA	660
CCTTCACACC ATTTGGTGTT CCCAGTGAAT AAAGCTGAAA AGCTTGTTC CTTTTGGCA	720
AGTTTTGTTC GAAACGGGCA CCTGCTGTTG GTCTGTTTAG CCCCCTAAAA GCTCCTTGAT	780
TACTAGCTTC ATCCTGCCAT ACGGTCGGTA ATTGATATGC TGACATCCGA AACCTCCCTT	840
AAATCGCAT CTGTGCAAAA CCGAGTTTGC GTTGAATAAA CTTAACGATT TCGACGATGA	900
TAATCATTTGA GAAGCTTCCA GCCATAACAA TTCCCCATTG TGACAAGTCT AGTTTGGTTA	960
CGTGGAAGAT TCCTTCAAGC GGTCTTACAA CGATTGTTGC CATGAGAAGG ATAAAGGATA	1020

491

CCAAGATGGA CCAGTTAAAG GTCTTAGACT TGAATGGGCC AACTGTCAAG ATGGATTGGT	1080
AGACAGACTT GACATTGTAG GCATGGAAGA GCTGAATCAA ACCAAGGGTT GCAAAGGCCA	1140
TCGTTAGGGC ATCTGCATGA ATAGCATGAT TGTCACCCAC ATGAACTGGG TAAGCAATCG	1200
CAAGGCCATA AACACTCATA ACAAGAGCTG CTTGGAGTAC ACCTTGATAA ATGATAGAAC	1260
TCAAAACACC ACCTGAGAAG AAGCTTGCCT TCGTCCACG TGGTTTATGA TTCATGACAC	1320
CAGGTTCCGC AGGTTCAACA CCAAGAGCGA TAGCTGGGAA GGTATCCGTT ACCAAGTTGA	1380
TCCACAAAAG ATGAACCGGC TGTAAACAT CCCAACCAA CAAGGTTGAT AGGAAGATGG	1440
TTAATACTTC AGCAGTATTA GCAGAAAGTA GGTACTGAA AGTCTTTGA ATGTTTGAGA	1500
AGACCTTACG TCCTTCTTCC ACTGCGACGA TAATAGTCGC AAAGTTATCA TCTGCAAGAA	1560
TCATATCAGA AGCCCCCTTA GAAACCTCTG TACCAGTGAT TCCCATACCG ATACCGATAT	1620
CGGCTGTTTT CAGAGCTGGC GCGTCATTGA CACCGTCACC TGTCATGGCA ACGACTTTAC	1680
CTTGTTTTTG CCAAGCCTTG ACGATACGAA CTTGTGTTC TGGAGACACA CGGGCATAAA	1740
CAGAGTATTG ACCAACGACT TTTTCAAATT CTTCATCTGA CAGTTCATTG AGTTCAGCAC	1800
CAGTTAAAAC GTGACCTTCT GTATCGTTTG CGTCAATGAT TCCCAAACGT TTGGCAATGG	1860
CTTCCGCTGT GTCTTGGTGG TCACCTGTAA TCATAATTGG ACGGATTCCC GCTTCCTTAG	1920
CCACACGAAC AGCCTCAGCG GCTTCAGGAC GTTCAGGGTC AATCATCCCA ATCAAACCAG	1980
TAAAAATTAA ATCATTTTCA AGCTCTTCAG AAGTGAGATT TTCTGGAATA CTATCGATAA	2040
TCTTATAAGC ACCTGCAAGG ACACGCAAGG CTTGATGAGC CATTTTCAGAA TTGTTTGATC	2100
GAATGAGATT TGTAACCTTC TCATCAATCG GAGCAATATC CCCAGCCTTA TCACGAAGAA	2160
GACAACGTTT TAAGAGTTGG TCTGGCGCAC CTTGACTGC TACAAGGAAA CGACCATCTG	2220
GCAATGGGTG AACTGTTGAC ATGAGCTTAC GGTCAGAGTC AAATGGCAAT TCAGCTACAC	2280
GAGGATATTT CTCTAAGAAA CCTTTGACAT CATAGCCCTT GTCCAAGGCA TATTGGATAA	2340
AGGCTGTTTC GGTGGGTCA CCAATCAAGT TACCTTCCAC ATCGATTTTC GTATCATTTG	2400
CCAAGACAAC TGAACGAAGT AGTGGCATTT CAAGACCTAG TTCAATATCA TCAGCTGAGT	2460
CATGTAGAAC CGCATCGTAG AAGACTTTTT CGACTGTCAT CTTGTTTATA GTCAGCGTAC	2520
CAGTCTTATC AGAAGCGATG ATTTCAAGTTG AACCAAGTGT TTCAACTGCT GGCAACTTAC	2580
GAACGATGGA ATGTCGTTTG GCCAAAACCT GAGTACCAAG AGAAAGAACG ATGGTAACGA	2640
TAGCAGGAAG TCCTTCTGGA ATGGCTGCAA CGGCAAGGGC AACAGAAGTC AACAACTCAC	2700
CAAGTGGATT TTTCCCTTGA ATGAAGACAC CCACTACAAA AGTAACAAGG GCAATGACCA	2760

492

AGATAGCATA GGTCAAGACC TTAGAAAGGT TGTTCAAATT TTGTTTGAGT GGTGTATCAG	2820
TCTCATCCGC ATCTTGAAGC ATACCAGCAA TATGACCAAC TTCAGTGTAC ATACCTGTAT	2880
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CACGGTCACC AATACCAGCA TCTGTCGCAA GCTCGACTGA CAAGTCTTTT TCGACTGGTA	3000
CAGATTCAAC TGTCAGGCT GCTTCTTCAA TTTTAAGAGA GTTGGCTTCT ATCAAACGTA	3060
GGTCCGCTGG TACCACGTCA CCTGCTTCAA GGGCAACGAT ATCGCCTGGT ACCAATTCTT	3120
TAGAGTCAAT CTCTGCCATG TGTCCATCAC GAAGAACGCG GGCAACTGGA CTAGACATGG	3180
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TGATGATAAC CACAGCTAGG ATGATAATGG CATCTGCGAT ATCTTCCCCA CCAGAAGTCA	3300
CGACTGACAA GATTGctGCC GCAACTAGGA TGATAATCAT CAAATCCTTA AATTGCTCGA	3360
TGAATTTGAC CAAGATTGAT CGTTTCTCGC CTTCTTCGAG TTCATTGTGC CCAAATTCGG	3420
CAAGGCGCTT TTCCGCCCTCA CTTGATGACA AACCTTGCTC GGTGCGATCC ACAGCCTGCA	3480
AGACCTCTTC AGGGCTCTGA GTATAAACG CTTGGCGTTT TTGTTCTTTT GACATGTGTC	3540
TCCTCCTTGA CATTGTGTGC AAAACAGACT CTCTTCTGT CATAGCTTTT CACGACAAAC	3600
AAAAAGAAAC CTGTTAATCA TAACAAGTCT CGCTGTTTAA GATAGGGCCG GAAAGCATAC	3660
TTTTCAGCAT AAAATTCGGA ATGACGACAC TATCACAGGT TTCTGCCAGC TACTCCCTTG	3720
AGTAGTACCA TTATACCAA TTTTGGGGAG TTTTCAAAGA GTAAAACTG CCTTATTGA	3780
ATTTTTCTTT GAAAACCACT ATAATGGTAG AATGCTATGT GACTAGAAAG GAAGTTGAAT	3840
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CTATTTGATC TTGTCTGCAG CCAAATTAGC AGCTGGTCAT CTCCTTCATT CATCCAGTTT	3960
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GATTCGGATG GCGCGCCACC TGCAGACCGT GACCACCGTT TTGGTCATTG GAAGATTGAA	4080
GATTTGGCAA GCTTGATCAC TTCTATCATC ATGTTCTATG TCGGTTTCGA TGTCTAAGA	4140
GATACCATTC AAAAGATTCT CAGTCGGGAA GAAACGGTCA TTGATCCTCT TGGTGCAACT	4200
CTAGGAATCA TTTCTGCAGC GATTATGTTT GTGGTCTATC TCTACAATAC TCGCCTCAGT	4260
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ACCTCACTTG GAACCGCCAT TGCCATCCTA GCTAGTAGTT TCAATTATCC GATTGTGGAT	4380
AAACTGGTTG CTATCATCAT CACTTTCTTT ATCTTGAAGA CTGCCTATGA TATCTTCATC	4440
GAGTCTTCCT TTAGTCTTTC AGATGGCTTT GACGACCGCC TGCTCGAGGA CTACCAAAAG	4500
GCTATCATGG AAATTCCCAA AATCAGCAAG GTCAAATCGC AAAGAGGTCG CACCTACGGT	4560

493

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 CATGAAATCG CGGATCAGGT CGAGTCTATG CTGGAGGAGC GTTTTGCCGT CTTTGATACC 4680
 GATGTCCATA TCGAACCAGC ACCTATCCCT GAGGATGAAA TTTTAGACAA TGCTATAAA 4740
 AAATTGCTTA TCGGTGAACA ATTGATTGAC CAAGGAAACC AACTAGAAGA ACTCTTGACT 4800
 GATGATTTTG TCTATATTCG CCAAGATGGA GAGCAGATGG ATAAAGAGGC TTATAAGACC 4860
 AAAAAAGAGT TAAATCTGC TATCAAGGAC ATTCAAATTA CTTCCATCAG TCAAAAAACC 4920
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 CGGGATTTT CTATTCTTT ATACTCAATA AAAATCAAAG TGCAAAATTAG GAAGCCGGTC 5100
 ACAGGCTGTA CTTGAGTCGG CAATGTGAAG CCGACATAGT TTGCACTTTG ATTTTCGAAT 5160
 AGTCTTAACT ATCAAATTC CTGAGATACT CATAGCGTTC GTATTTTCA AGGAGTGCTT 5220
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 CCTGCATTTC CTCTCAATA GCAGCGATAC GTTTTCCAA GGTTCATA TCACCTTCAA 5340
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 GATTGATACG AGCTTGTTC TTGGTCGCAC GCGCCTGCGG TTGTCTGCGC ATCCAGGCCA 6240
 ATCTTGTTT GTAGAGTTGT TCTTTTGTG GAAGAAGAGC CGCGTCGCGC TCATCCTGTT 6300

494

CGGCCCTTTAG GCGAACATAG TCCTGGTAAT TTCCCTGGTA CTCGGTCAAG CCTGCACGAT	6360
CCAACCTCGAA AATCCGTGTT GACAAAGCGT CTAAGAAATA ACGATCGTGA GTGATAAAAA	6420
GGACGGTCTT CTTAGAATTT TTCAAAAAGA GGGTCAGCCA CTCAATAATC GCAATATCCA	6480
GATGGTTGGT CGGCTCATCC AAAAGCAAGA GGTCTGTGGT GCCAAGTAAG ACTTGTGCCA	6540
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TGCCCCAATTT GCTAAGAACG GTCTTGACCT GACTTTCGAT TTCCCAAGCT TGGAGAGAGT	6660
CCATCTCTGC CATGACACGT TCCAAACGCG CCTGCTTGTG CTCACTATAG TCGAGCATAA	6720
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AAACTGTCTT TCTATCATCA AAATCAGGAT CCTGAGTCAA GTAACCAATC TGGTAATCAT	6840
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CGGCTGATTT GAATGGCTAG CTTATCCTGA ATGCTGGCAA AATCATCGCC CTGATCACGC	9720
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496

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ATTACGCGCA TCAAAATGAT ACTGACTAAC AAATTCTTGT TCACGTTTAA GATTCATGTC	10500
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TGTCACCATT CTCATCAACA GCAATCAAGC GGTCACTGTC TCCATCAAAG GCCAAACCA	11220
TAGCTGACCC ACTTTCTTTG ACCACTTCTT GAAGGGCTTC TGGATGTGTT GAACCAACAT	11280
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CTGCAAAGAT TTGACGGGCA CTGGTAGAAG CTGCTCCATT AGCTGTATCC AAGGCAACCT	11400
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AGCATCTAGC AAGGCTTCAA TTTCTGCTTC TTTTCATCA TCTAGTTGA AGCCATCACC	11580
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ATCTTATCAA TTCTATCCAA TGTCTCTGG TCACTCGTAA TAGACACTTC TTTATCTGAC	12240
ACCATGACAT TTTCAATTG TACCCGACTA TCAATTTGAC TAGGGTCAAT CTCTGGTACA	12300
ATCTTTACCT TATCCTCTG AGCCTTCTTA CCAATCTGA CTGTAATTTT TTGCGGAGTC	12360
GCCACAGCG TCAGCCATT GGGTAAATCT TCAATGCTCA AAGGAACTTC AATCGTTCCA	12420
ACACCGGAT CTGTAGGTC AGCAGTAACC TTGAATTTAC GTGTACTTTC TTGCATTCA	12480
CTAGCTAGCG ATAGCGGATT TGCACAGTC AAGACCACTG ATACTTCTGA AGCAAAACCG	12540
CTAATAAAAT ACTTATCACT ATTATAGCGT ATGTCAATAG GGACATTGT TACTGTATTA	12600
GTATAGGTTT CCGTTTTAC CTGCCTAGCA CTGGTACTGT TTTGAAAATT CGTCGCCGTA	12660
GCATAGACAA ATAAGACACA AGCAAAAAG AGTGAGGATA TGATATATAA ACTATTTTTT	12720
TTCATGTTTC CATCCTCCTA GCAATCGTTC TTTAAACTA AGACCCACTT CCTCTTTGG	12780
AAGTAAGATT TCACGTAATT CTGTTTCAA TTCATCAAGT GTTAGGTGT GCTTAAACCT	12840
TCCATTATAG GTTATCGAAA TTCCTCCGT TTCCTCTGAT ACGACAAAAG TCAAGGCATC	12900
TGAGACTTCT GATAAACGA TAGCCGCCCG GTGTCTGGTC CCAAATTCCT TGGAAATCC	12960
TGTGTTTTTT GTCAAGGCA GATAGGCAGA CGTCACACCG ATACGTTCTT CTTTGATAAT	13020
CACCGCACCA TCATGTAGG GAGTGTGGG AATAAAAATG TTAATGAGAA GTTCTGCAGA	13080
AATCTTAGCA TCCAAGGAA TTCCTGTCGA AATATACTCC TGCAAGGTAC GTACACGCTG	13140
AATAGCAACC AAGGCCCGA TTTTACGAG ACTCATGTAT TCAACAGACT TAACAAAGGC	13200
ACGAATCATC TGTTCCTCAG CACTAATAGG GGCATTGGAA AAGAAATCTG TCGCTCTTCC	13260
CAAACGTTC AAACCACTC GAATCTCTGG AGAGAAGATA ACAACGCCG CAATAACCCC	13320
ATAAGTAATA ATTTGATTGA TTAACCAAGA AATCGTAGTC AAACCAATCA TATTTGCAAG	13380

498

GATTTGAGCT AAAATAAACA CAAAACTCC ACGTACCAAA ATCATAATCT TGGTTCCTGC	13440
AATAGCTTTT GTAAAATGGT ATAAAATATA AGCAACAATC AAAATATCAA TCAGATTGAT	13500
AGCTATCGTC CATGGACTTG CAAACAACT GGTCCAATAT TGCAGATTGG ATAATTGTTG	13560
AAAATTTCATC CCTGATATCC TCCCTATCAA AACACTTTCG TCCTATTATA CCATTTTCTG	13620
GCATTTTTTT CCCTATCCTA GTCCATTTTA CATTGAACAA AAATATGATA AAATAAACTG	13680
ACTAAAAAAA ACAAGGAGA AACTATGTCT CAACTCTATG ATATTACCAT TGTGGGTGGT	13740
GGTCCTGTGC GGCTTTTTC AGCCTTTTAT GCCCACCTAC GCCAAGCCAA GGTTCAAATC	13800
ATCGACTCTC TTCCCCAGCT AGGTGGACAA CCTGCTATTC TCTACCTGA AAAGGAAATC	13860
CTAGACGTAC CAGGCTTCCC AAACCTGACT GGAGAAGAGT TGAATAACCG CTTGATTGAA	13920
CAGCTAAATG GATTTGATAC CCCTATTTCAT CTCAATGAAA CGGTTCTTGA GATTGACAAA	13980
CAAGAAGAAT TTGCCATCAC AACTTCTAAA GGAAGTCACC TGACTAAAAC AGTTATCATC	14040
GCTATGGGTG GCGGTGCCTT CAAACCACGT CCGCTGGAAC TTGAAGGGGT TGAGGGCTAT	14100
GAAATATCC ACTACCACGT TTCTAACAT CAGCAATACG CTGGTAAGAA AGTGACGATT	14160
CTTGGTGGGG GAGACTCGGC TGTGGATTGG GCTTTGGCTT TTGAAAAAAT CGCACCAACT	14220
ACCCTTGTTT ACCGCAGAGA TAATTTCCTG GCCTTGAAC ACAGTGTTC AGCCTTGCAA	14280
GAATCATCTG TAACCATCAA GACACCATTC GCCCCTAGCC AACTCCTTGG AAATGGAAAA	14340
ACACTTGATA AACTTGAAAT CACAAAAGTC AAATCTGATG AACTGAAAC CATTGACCTA	14400
GACCACCTCT TTGTCAACTA TGGTTTCAAA TCTTCTGTG GTAACCTTAA AAATGGGGG	14460
CTCGACCTCA ACCGTCACAA GATTATCGTC AACAGCAAAC AGGAATCCAG CCAAGCAGGT	14520
ATCTATGCTA TCGGTGACTG CTGCTACTAT GACGGAAAA TTGATCTGAT TCGACAGGC	14580
CTCGGAGAAG CTCCAACGTC TGTCAACAAC GCTATCAACT ACATTGACCC TGAACAAAA	14640
GTACAACCAA AACACTCTAC TAGTTTATAA AAAAGAACCA CGAGTCACAT AGGATTCTGT	14700
GTTTATAAT TCATCCGCTA TCTTATTGAT TTTTCTGAGT CTGTGATTGA CACCACTTTT	14760
GGTCAGAGGG GTGCTGAGAC TATCTGCTAA CTGCTGGATA GAGTAGTCTG GGTGCTGAAT	14820
CCTCAGTTGC GCCACTTCCT GCAAATCTAC TGGCAAATTT TCTAAGCCCA TGATATCTTT	14880
GATTTTACTG ATATTGTTAA TGGTCTTCAT GCTGGCAGAA ACTGTCCGAG CGATATTAGC	14940
TGTCTCGGCA TTATTAGCCC GATTGAGGTC GTTACGGGTT TCTCGCAAAA TCTTAACCCG	15000
CTCAAAATCA TCACGTGCCT GCATGGCTCC TATTACTATC AAGAAGTCCA TAATGTCTTC	15060
TGCTCGCTGG AGATAGGTCA CAGCCCCCTT CTTGCGCTCA AGCACCTTGG CATCCAGTAA	15120
AAACTGTTGG AGAAGGGAGG CAATTCCTTG CGCGTGGTCC AGATAAACAG AACTGATTTC	15180

499

CAACTGGTAC	TTGCCTGACT	CAGGGTCACG	AATGCTCCCA	TTTGCCAAGA	AAGCGCCACA	15240
GAGATAGGCA	CGACCTGCTT	CCTCATCCGA	TAAATCGCC	TCATCAATAC	CTGTTCCAG	15300
GCCAAAGAAA	GAGTCTGCCA	AGTGCAAATC	ACTTAACAAA	TCCTGCACCT	TTTCATCTGT	15360
AAAAACGGTA	TAGACGCGAT	TCTTGCGAAG	ATTGCTCCGT	TGGTGGTGAC	GAATTTTACA	15420
TTTGATTTCA	TAGAGATGGA	GAAAGGACTC	ATAGAGGTGA	CGGGCCAGTT	TGGCATTTTC	15480
TGTCACAACT	GACAAAGTCA	AGCCCGAAGT	CGAGAGACCG	ATGCTACCAG	ACATTTTGAT	15540
AATGGCAGAT	AATTCATGCC	AGCTCAGATG	GTGTTGGCCC	AGGATTTCTT	CTTTTACTGC	15600
TACTGTGAAA	CTCATTTTTT	CACCTGTATA	ATGCGCATCA	ACTCGTCCAC	AATCAAATCT	15660
CCATCGTGGA	AGGCACCGCC	ATTTTCCAGA	CGAAGGAAGT	TAGATGAAAT	CACGCGCGAA	15720
ACTTGCTTAC	AAAGACCTAC	AAAATCGTGT	TCCACTTGCA	CTAAGTATTC	ATCAAAACGG	15780
TTGGAATTC	TGTATTCCTG	AGGCACTTTT	TCAATATTCA	CCAAGACAGT	GTCGATAAAA	15840
GGGCGACCAA	GGTGACGATG	CAAGACTTCC	ACGTGGTCGC	TATCTGTAAA	GTGTTCCGTC	15900
TCCCCACGTT	GGGTCATGAT	ATTGCAGACA	TAGGCAATTT	CTGCCTTGGT	TTCCAAAAGA	15960
GCCCCCCCAA	TTTCCTTAAT	CACGATATTG	GGCAAAATAG	AGGTAAAGAG	GGAACCTGGC	16020
CCTAGGACAA	TCATGTCACT	TTCAAGGATG	GTCTGCACTA	CTCGACGGCT	GGCCAGAGGC	16080
GTATCATCGT	TTAGGGCATT	GGTCACATAG	ACATGTGCAA	TTATGCCTCG	ATGGTCTACA	16140
ATATGACTCT	CTCCAGCCAC	TTCTGTCCCA	TCCTGAAAGA	CTGCATGAAG	GGTCAAAGGA	16200
TGGTCACTGG	AAGGATAAAT	TTTCCTGTT	GTATGGAAAA	ATTTGCTCAA	TAATGTCATG	16260
GCATTTATAG	TTGAACCTCG	CATTTCTGAC	AAGCCAGCAA	TGATGAGATT	TCCCAATGGA	16320
TGGCCAGCAA	AGGCTCCGGC	ATCCTCAGAG	AACCGATACT	GAAAGACCTT	CTCATAAAAC	16380
TTAGGCATAT	CCGACATGGC	CACAAGGACA	TTACGAAGAT	CACCTGGCGG	TGTCAACTGT	16440
TGCATATTTT	TTCGGAGTTC	ACCTGAAGAA	CCACCATCAT	CTGCCACCGT	CACGATAGCT	16500
GCGATTTCCA	CATCTTTTTC	CCGCAGACTT	TTTAGAATGA	CGGGACTTCC	AGTCCCTCCA	16560
CCAATCACCG	TTATCTTTGG	TTTTCTCATG	AACGGTTTAC	CGTTTCTTTT	CTGCGGTCTT	16620
TGTCGCGATG	CCCTTCATTA	ACAGACCAAT	TCTTGGATAA	GTCTGCGCC	AAGCGTTTAG	16680
CAAATGCCAC	ACTACGGTGT	TGTCCACCCG	TACATCCCAT	GGCAATGGTC	AAAACGGACT	16740
TACCTTCCTT	TTGGTAACTT	GGCAGAATCG	GCTCAATCAA	GGCCAATAAA	TGTTGATAAA	16800
AGTCTTCTGA	CTCAGGATGG	TTCATGACAT	AATCATAAAC	AGGTTTCATCC	ACACCCGTTT	16860
GTTTCTCAG	TTCTGGTAAA	TAATAGGGAT	TTGGCAAGAA	ACGGACATCA	AAGACCAAGT	16920

500

CCGCATCAAT CGGGATTCCA TACTTAAATC CGAAAGACAT GACTTCGATA CGGAAAGACT	16980
GGGCTTGTTT TTGGTCTGAA AACTGCTCTG CAAGGGTTTT GCGCAGCTCA CGTGGAGTGA	17040
GTTTCAGTCGT ATCCACCACA TTTTGGCTCA TATTTTTCAG AGGTGCCAAG AGTTCACGTT	17100
CCAACTTGAT TCCATCTAAA ATACGACCGT CTGCTGCTAG TGGGTGACTC CGTCTGGTTT	17160
CCTTGTAACG AGCGACCAAT TCCTTATCAG CCGCATCCAA AAAGAGGATT TTGAAATCCA	17220
AACCATCTTG ATTTTCCAAC TCATCCAAAA CAGCTTGAAT CTCTGAAAAG AAAGAACGGC	17280
TACGCATATC CACTACCAAG GCCAACTTAG GATTGCTTTC CTTAATTTC AACCAGCTGCA	17340
AAAACCTTAGG CAAGAGAGCT GCGGCATAT TATCAATGGT GAAATAACCT AGATCCTCGA	17400
AGGACTGAAT GGCTACAGTT TTCCCTGCGC CACTCATCCC TGTCACAATC ACCAAGTGAA	17460
GTTGTTTCTT TGTATCTTTT TTCTCCTTAT ATCAAAAGAA GTTTGGCAAC ACCAACTTC	17520
AAC TAGCTTA TCCAATCTCT GCGATGACTT CAATTTGAC TTTTACATCA CGAGGAAGAC	17580
GAGCTACCTC CACAGCTGAA CGAGCTGGGA ATTCTCTTTT GAAGGCCGTT TGGTAAACCT	17640
CATTAAAAGG AACAAAGTCG TTCATATCGC TCAAGAAGCA AGTTGTTTTC ACAACATGGT	17700
CAAAGTCTGT TCCTGCTTCT GCCAAAATAG CACCGATGTT TTTCAAGACT TGCTCTGTCT	17760
GTTCTTGAT ATTCTCTCCT ACAATTTCCC CAGTTTCAGG GGATAGGGGA ACTTGACCGC	17820
TAGCAACAA AAGGTTGCCA ACGATTTTTC CTTGAACATA GGGTCCGATA GCCTTTGGGG	17880
CCTTATCTGT ATGAATGTTT TTTGCCATTT TCTTTTCTC ACAATTTTTC TAAGATTGCA	17940
TCCCAAGCCT CATCCATCCC TGCCTTACTG ACAGATGAAA AGAGGATGAA ATCGTCACTC	18000
GGGTCAAAGT TTAATTTCTT TTTGATTGCT GATTCATGCT TGTTCATTT ACCACGAGGA	18060
ATCTTGTCGG CCTGGTCCG CACAATGATG ACTGGAATCT CATAATACTT GAGAAATTCG	18120
TACATCTGCA CATCATCTGC TGACGGGTCA TGACGAAGGT CAACTAGACT GACAACCGCA	18180
CGGAGATTTT CCCGAGTCGT TAAGTACTCC TCAATCATGC ACCCCCACTT TTCACGTTCC	18240
TTTTTAGAAA CACGAGCATA GCCATAACCA GGCACATCCA CAAAGCGCAT CTGTGCATCA	18300
ATGTTAAAAA AGTTCAGGAG CTGGGTTTTC CCAGGTTTTC CTGATGTACG GCGGAGATTC	18360
TTACGGTTCA ACATAGTGT GATAAAGCTG GATTTACCAA CATTTGAACG CCCTGCTAGG	18420
GCAATCTCTG GCAGTTCATC CTGCGGATAG TGGGACTTAT TAGCTGCACT GAGCAAGATT	18480
TCAGCATTGT GTGTATTAAG TTCCATAGTC ACCTCTAGGC TGTTCCTAGG ATCGGTTTAT	18540
CCGTTCCATC TACAGTTTCT TTAGTGATGC GAACCAATTT CACATTTTCC TGACTCGGCA	18600
CCTCAAACAT GACATCTAGC ATGGTTTCTT CGATGATGGA GCGAAGTCCA CGCGCCCTG	18660
TCCTCCGTTT GATTGCTTTA TTAGCAATCT CTTGAAGGGC TTCGTCGTCA AATTCCAAT	18720

501

CAACATCATC ATAAGAAAGC AAGGTTTGGT ATTGTTTCAC CAAGGCATTT CTTGGCTCTT	18780
TCAAGATGCG AACCAAGTCA TCAACGGTCA ATTGCTCAAG AGCCGCAAAA ACAGGCAAGC	18840
GTCCAATCAA CTCAGGGATA ATACCAAAT TTTGAATGTC TTCAGCGATG ATTTCTTGCA	18900
TGTATGAGCT GTTTTCGTCA ATCGCCTTAT TATTTTGACC AAATCCGATG ACTTTTTCAC	18960
CCAGACGTTG TTTGACAATT TCTTCAATAC CATCAAAAGC ACCACCCACG ATGAAGAGGA	19020
TATTTTGTGT ATCCACTTGA ATCATCTCTT GTTGTGGATG TTTGCGTCCA CCTTGAGGCG	19080
GTACGCTAGC AACAGTTCCT TCAATAATCT TGAGAAGGGC TTGTTGCACC CCTTCACCAG	19140
AAACATCAGC TGTGATAGAC ACATTCTCAC TCTTCTTGGC AATCTTGTCA ATTTTCATCCA	19200
CATAGATAAT GCCACGCTCT GCACGTTTGA TGTAAAGTC AGCAACCTGC AAGAGTTTGA	19260
GGAGGATATT TTCCACATCC TCACCCACAT AACCAGCCTC CGTCAGAGCT GTCGCATCCG	19320
CAATAGCAAA AGGTACATTC AAGCTCTTAG CCAAGTCTG GGCAAGGAAA GTTTTCCCTG	19380
AACCAGTTGG GCCAATCATC AAAATGTTG ACTTCTGCAA ATCCACATCT TCTGACTCTT	19440
CGCGTGTATC GTGGAATTG ATGCGTTTGT AGTGGTTATA AACCGCCACT GCCAAGGCAC	19500
GCTTGGCAGC ATCTTGACCA ATTACATAGT GGTCAAGAT ATGGAGGAGT TCAATTGGTT	19560
TTGGCACCTC AGACAAGTCT GCCAAGACTT CCTCAACCAA TTCTTCTCGA ATGATTTCCT	19620
GAGCTAACTC CACGCATTCA TTACAAATAA AAGCATTTGT GCCAGCAATT ATTTTGTGTA	19680
CTTCTCTTGG GTTTTGTCCA CAAATGAGC AATAAACCAT CATATCATTT TTCTATTG	19740
TAGACATGAT TTCCTTCCAT TCTATACTGT CATTCTATCT AAAATAAGGT CATGTAAAAA	19800
GCATGAATAC TATTGACCAG ATTGGTAAAG GCATTTAACC AAAGGAGGAT AGAAAGCCCG	19860
TAACGCTTTT TACGAAAAGC TTGTGCTCCT GCCAGAAAGC AGATGAAACA CAGAAAAGCC	19920
GTGAATAGAC CAAATAAACT CCGTTCCATT AGACTTCCTT TCTCTTGGCG TATTGGATGG	19980
TAAATCATA AGGATTCTTC TCATCTTTGG CGTAAATTT GCTTGAACT GTCTCAAAAA	20040
GAGACAAGTC AAGTTCTTCA GGGAAATAGG TATCTCCTTC CACCCGAGCA TGAATGTGAG	20100
TGACAAATCAC TTCATCAAGG TAAGGTTCAA AAGCCTGAAA AATTTGCTTC CCACCGATAA	20160
TGTAGAGATT CTTTCTTGA GCCTGATACC AGTCAAGAAC AGACTGGACG TCCTGAAAAG	20220
TAGCAACCCC ATCTATCTTT TCTTCCGGAT TACGCGTCAA AATCAAGGTT TCCCGTTTGG	20280
GAAGCAAGCG ACGCCCCATC CCATCAAAGG TCACACGCCC CATCAAGATA GCATGATTCA	20340
GAGTTGTTTC TTAAAGTGC TGCAATTCTG CTGGCAAATG CCAAGGCAGA CGATTTTCCT	20400
TACCAATCAC ACCCTCTTCA TCCTGGGCCC AAATAGCTAC GATTTCTTA GTCATGCTTC	20460

502

CATCCTTTTC ACTGATAGTA CTATTTTATC AAAAAACTCA AAAAAAGACT GGTTCGGAAT 20520
 AGCTTACAAA ATAGAAAAAA TCTGTAAGAA ATTTCCTACA GATTTATCTA TGTTTCCTTA 20580
 TTTCTTACAA ACCAGGTGCT TGTCCAAGTT CGGCTGCAAG CATCCAAATT GTTTTATCTG 20640
 TTTCAGTTTT AGCGCCTGCA AAGATACCGT TTGTCACATC GTCACCTTCT TCATCAGTGA 20700
 CATCCAAACC TTTTGGAAA AGTTCTGACA AGTAACGGTA GATAACAAGA ACACGTTCCTA 20760
 AGCTTCTTC AACATTACGG TATTCACCAG CTTCTTCTTC GATTTCACTA TTTTGAAGGA 20820
 ACTCTGTCAA TGTAAGAAAT GGGCTTCCAC CGAGTGAAT CAAGCGTTCA CTGATTTCAT 20880
 CCAATTGACC GTCAAGAGCT TCCATGTACT CATCCATTTT TGGATGCCAT ACAAGGAAAC 20940
 CACGACCATG CATATACCAG TGCACTTGGT GCAAAGCAAC GTGAGCTACA TACAAATCAG 21000
 CAACAGCTTG GTTCAAGACT TCCTTTGTTT TTGCCAATGC 21040

(2) INFORMATION FOR SEQ ID NO: 56:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2387 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

ATTCTTAATA CGATTAAAG GCTTATTACT AAAAGAAAAT TTCAGTTAGA TGAATAAAC 60
 TTGCTCGTCA AATCCCGATT TAACGAGATG TTTGGGGAAA ATAAATATT TGAAAGCATT 120
 GATAACTTAT TTGATATTAT AGATGGTGAT AGGGGCAAAA ATTATCCTAA ATCAGATGAG 180
 TTGTTTAGTG AGGAGTACTG TTTATTTTAA AATACAAAGA ATGTTACTAA AAACGGATTT 240
 TCATTCGATA CAAAGCAATT TATCACTAAA ACAAAGGATA AATTACTTCG AAAAGGCAAA 300
 CTTGAGCGTT ATGATATAGT CTTGACAACA AGAGGTACTG TTGGAATGT AGCGTACTAC 360
 GATGAATTAA TAAATATATA ACATTTACGT ATAAATTCAG GTATGGTAAT ATTACGTCCC 420
 AAGACACCAA ATCTAAATCA GAAATTTATT ATCCATGTTT TAAGGAATAA TAATTATAGT 480
 CGAGTGATAT CAGGAAGTGC TCAGCCTCAG TTACCAATTA CAAATTAATA AAAAATACTT 540
 CTCCTCCCTCC CCCCACTAGC CCTCCAAAAT GAGTTCGCAG ACTTTGTAGT CCAGGTCGAC 600
 AAATCACAAT TGGCAATCCA AAAATCTCTG GAAGAACTTG AAACTTTGAA GAAATCTCTG 660
 ATGCAGGAGT ATTTTGGCTG ATATTCTGCC ATTGTAATTA CGGTAATGAT TTGTTATAAT 720
 ACTTCAAAGG AGGAAATCAG ATGGTAGTAA AAACAAGAAA ACAAGGAAAT TCAATCACCA 780
 TTACGATTCC AAGTGAATTT AATATTCCAA GTGGTGTTAA ATACGAAGCG AAATTGTTAC 840

503

CAAGTGGTGA GATTATCTTT ACTCCTGAAG AATTGGGGCA GCAGGTTTCT TATGTATCTG	900
ATGATGCCTT TGACTIONAAT TTAGATAAAA TATTTGACGA ATACGACGAT GTTTTCAAAG	960
CTTTGGTGGG AAAATGACAA TCTATTTGAC AGAAAAGCAA ATTGAAAAAA TAAATGCTTT	1020
AGCAATTCAA CGGTATTCTC CAAATGAGAA AATTCAAACA GTTAGTCCTT CTGCCTPAAA	1080
TATGATTGTG AACTTACCAG AACAAATTGT CTTTGGGAAG CCTCTTTATC CAACAATTTT	1140
TGATAAAGCA ACGATACTAT TTGTCCAATT GATAAAGAAG CATGTTTTTG CTAATGCTAA	1200
TAAAAGAACT GCTTCTCTCG TTTTGGTCAA ATTTTACAA TTAAACGGCT ATCGTTTTTC	1260
TGTAACGTA GAAGAAGCAG TAAAAATGTG TGTAACCATC GCAGTAGAAG CTTTAACTGA	1320
TGAAAAAATG ACAAGCTACT CCAATGGAT TTCTGAACAT TCTGTTAGAG AAAAGGTCAA	1380
AAAGTAACCT AGTATGCTGG ATTTGAATGA GCACAAGAAA ATAAATGAAC AGACAATATT	1440
AGAATTCTGT AATGCAGAAA CTGATATTGT CTCTTTTAT TGAATGAATA GAAAGTGAGA	1500
AATTATGGAA TCAAAAGTTA CAATTATCAT GCAAGAAATG TTACCTCTTT TAAATAATGA	1560
ACAATTACTA GCGTTGAGAG AGAGTTTAGA ACATCATCTA GTAGACGGAA AAAAGCAGCA	1620
GAAGTATTCG AATAATAACC TGTGCAACT ATTTATTACC GCCAAGCAGG TAGAGGGCTG	1680
TAGCTCAAAA ACAATTCGTT ATTATCAGAG GACGATTGAA AACTTGTTTA ATGCTATTAA	1740
AGAGTCTGTG ACACAACCTA CAACAGATGA TTTAAGGAGT TATTTAGCAA ATTACCAGTC	1800
TGAAAAGGAT TGTAGTAAGG CAAATTTAGA CAATATTAGG CGTATATTGT CTCTTTTTTT	1860
TGCTTGCGTT GAGCAAGAGG ATATATCATT AAAATTCCCA TTCGACGGAT ACAGAAAATT	1920
AAGACTGAGC AAAATGTGAA GGAAACTTAT ACTGATGAAC ATTTGGAAAT TATGCGTGAT	1980
AACTGTGAAA ATTTGAGAGA TTTGGCAATA ATAGACCTAC TAGCATCGAC AGGTATGCGT	2040
GTAGGGGAGC TTGTACAGTT GAATCGTTCA GATATTGATT TTGAAAACAG AGAGTGTGTT	2100
GTCTTTGGTA AAGGAAAGAA GGAGAGACCA GTATATTTTG ACGCTCGTAC GAAAATTCAT	2160
TTAAGAAATT ATCTTAACGA CAGAAAAGAT AGTCACCCTG CTCTTTTGT AACGCTAGTT	2220
GGAAAAGTCC AGAGGCTTGG AATTGCTGGT GTAGAGATTC GCTTAAGAAA GTTAGGAGAC	2280
AAACTCGGCA TACAAAAGGT TCACCCACAT AAGTTCAGAA GAACTTTAGC GACTAAGGCA	2340
ATTGATAAAG GTATGCCTAT CGAACAAAGTC CAAAACTGC TAGGTCA	2387

(2) INFORMATION FOR SEQ ID NO: 57:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10669 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

504

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

ATATTAAAGC GACTTTCTGT GCGCTAGGGA AAAATGTTCC TGGGAATGAG GACTTGGTGA	60
AGAGGATAAA ATCTGAAGGT CATGTTGTTG GAAACCATAG CTGGAGCCAT CCGATTCTCT	120
CGCAACTCTC TCTTGATGAA GCTAAAAAGC AGATTACTGA TACTGAGGAT GTGCTAACTA	180
AAGTGCTGGG TTCTAGTTCT AAACATCATG GTCCACCTTA TGGTGCTATT ACAGATGATA	240
TTCCGAATAG CTTGGATTG AGCTTTATCA TGTGGGATGT GGATAGTCTG GACTGGAAGA	300
GTAAAAATGA AGCATCTATT TTGACAGAAA TTCAGTATCA AGTAGCTAAT GGCTCTATCG	360
TTTTGATGCA TGATATTCAC AGTCCGACAG TCAATGCCTT GCCAAGGGTC ATTGAGTATT	420
TGAAAAATCA AGGTTATACC TTTGTGACCA TACCAGAGAT GCTCAATACT CGCCTAAAAG	480
CTCATGAGCT GTACTATAGT CGTGATGAAT AAGCAAGAAA AAATAGGTCT GTTAGATATT	540
TGACAGACTT ATTTTTTACA GAATATAGTA CTACTTAAAA AATGTTTTAT GCTATAATTG	600
ATGAATAAAA TAGAAGGAGA AGCATATGAA TACCTATCAA TTAAATAATG GAGTAGAAAT	660
TCCAGTATG GGATTGGA CTTTAAAGC TAAGGATGGA GAAGAAGCCT ATCGTGCAGT	720
GTTAGAAGCC TTGAAGGCTG GTTATCGTCA TATTGATACG GCGGCGATT ATCAGAATGA	780
AGAAAGTGT GGTCAAGCAA TCAAAGATAG CGGAGTTCCA CGTGAAGAAA TGTTGTAAC	840
TACCAAGCTT TGGAAATAGC AGCAAAACCTA TGAGCAAACCT CGTCAAGCTT TGGAAAAATC	900
TATAGAAAAA CTGGGCTTGG ATTATTTGGA TTTGTATTTG ATTCATTGGC CGAACCCTAA	960
ACCGCTCAGA GAAAATGACG CATGGAAGAC TCGCAATGCG GAAGTTTGA GAGCGATGGA	1020
AGACCTCTAT CAAGAAGGGA AAATCCGTGC TATCGGCGTT AGCAATTTTC TTCCCATCA	1080
TTTGATGCC TTGCTTGAAA CTGCAACTAT CGTTCCTGCG GTCAATCAAG TTCGCTTGGC	1140
GCCAGGTGTG TATCAAGATC AAGTCGTAGC TTAGTGTGCT GAAAAGGGAA TTTTATTGGA	1200
AGCTTGGGGG CCTTTTGGAC AAGGAGAACT GTTTGATAGC AAGCAAGTCC AAGAAATAGC	1260
AGCAAATCAC GGAAATCGG TTGCTCAGAT AGCCTTGGCC TGGAGCTTGG CAGAAGGATT	1320
TTTACCACTT CCAAATCTG TCACAACCTC TCGTATTCAA GCTAATCTTG ATTGCTTTGG	1380
AATTGAACTG AGTCATGAGG AGAGAGAAAC CTTAAAAACG ATTGCTGTTC AATCGGGTGC	1440
TCCACGAGTT GATGATGTGG ATTTCTAGAA AATCATAAAA AGAATTGTAC ATTATCTTAA	1500
TTTTTGATAT AATAGTCAGC AGGAAAGAAA GTCTTATGGC GTTCTTCAAG CGAGCTTGGG	1560
ATAGTGGGAG CCAAGTAGGG CAAAATAAAG GGCTGGCGCT TTCTGTAGTA TTTTCAAAAA	1620

505

CAATGAAGTA ATAAATTAGG GTGGAACCGC GTTCTGACG CCCCTAGGTT AAATCAACCT	1680
AGGATTGTCA GATGTGGTTC TTTTGCTTAT TCAGTCTATT GTGTGAAAGA AAGGAGAGCC	1740
GTGGACAACC TTTATCTTGT AAAAGACGAT AGTCAACTAG CTACATTTCG TGATTTTGTA	1800
GTAAGAAATA CTGAAAAGTT GAAAGATTAT CAATCTTTTT TAAAGAATGA ACTTGCAGTC	1860
TGTGATTTAC CGCAAGCTGT TATTGGTCA GATTTTAATG CTGCTACACA GATTATTAGG	1920
GAAAGTGC TG TCCAACCTA TACAAATAAT AGACGAGTGG TTATGACGCC TGATTAGCT	1980
GTTTGGAAG AATTGTATTT GTATCAGTTG ATGGACTACG AGTGTCTGA GCAAACCTCA	2040
GCAATAGAAA GTCACATCA TTCTTTATCT GAAAATTTC TCTTACAGAT TGTAGGACAT	2100
GAGTTAGCTC ATTGGTCGGA CATTTTITAG ATGATTTTGA TGGTTATGAC TCTTATATCT	2160
GGTTCGAAGA GGGGATGGTT GAATATATTA GTCGCAAGTA TTTCTTGACA GAAGAGGAAT	2220
TTCAAGCGGA AAAAATTGT AATCAATCTC TCGTAGAACT TTTTCAGAAG AAGTATAGTT	2280
GGCATTCATT GAATGATTTT GGTCTTCGA CTTATGATAA GAACTATGCA AGTATTTT	2340
ATGAATACTG GCGCAGCTTT TTGACAGTAG ATAAGTTGGT AGAAAATTTA GGTAGTGTAC	2400
AAGCGGTCTT AGATTCTTAT CATTTATGGG CAAATACAGA AAAAATTTT CCCTGTGTAG	2460
ATTGGTTTGT TCAGCAGAAA TTAATTGAAA AAGAAATATA AAACTAAAG GAGTAAACAA	2520
TGTCTAAGAA ATTAACATTT CACTGCATCA GTGGCAGAGA CCTCCTTACA GTCGGGCTGC	2580
TCCACGCTCA GCACTAGAGT GCCTGAGCTA GACGAGTAC TAACTCGTCT TGCTCGTAT	2640
GATCGACGAG GCAGACTCGT GTCGCAAGTA ATTATTTTTT ATTAAGGAGT ATTCAATGTC	2700
TAAGAAATTA ACATTTCACT GCGTCAGTGG CAGAAACCTC CTTACAGTCG GACTGCCCTA	2760
CGCTCAGCAC TAGAGTGCTT GAGCTAGACG CAGTACTAAC TCGTCTTGCC TCGTATAATC	2820
GACGAGGCAG ACTCGTGTG CAAGAAATTA TTTTITATTA AGGAGTATTC AATGTCTAAG	2880
AAATTAACAT TTCAAGAAAT TATTTTGACT TTGCAACAAT TTTGGAATGA CCAAGATTGT	2940
ATGCTTATGC AGGCTTATGA TAATGAAAAA GTGCGGGGA CAATGAGTCC TTACACTTTC	3000
CTTCGTGCTA TCGGACCTGA GCCATGGAAT GCAGCTTATG TAGAGCCATC ACGTCGTCTT	3060
GCTGACGGTC GTTATGGGGA AAACCTAAC CGTCTCTACC AACACCACCA ATTCCAGGTG	3120
GTCAATGAGC CTTCTCCATC AAATATCCAA GAACTTTACC TTGAGTCTTT GGAAAAATTG	3180
GGAATCAATC CTTTGGAGCA CGATATTCGT TTTGTTGAGG ACAACTGGGA AAACCCATCA	3240
ACTGGTTCAG CTGGTCTGG TTGGGAAGTT TGGCTTGACG GAATGGAAAT CACTCAGTTC	3300
ACTTATTTCC AACAAGTCGG TGGATTGGCA ACTGGCCCTG TGAATGCGGA AGTTACCTAT	3360

506

GGTTTGGAGC GCTTGGCTTC TTACATTCAA GAAGTAGACT CTGTCTATGA TATCGAGTGG	3420
GCTGATGGTG TAAAAACGG AGAAATCTTT ATCCAGCCTG AGTATGAGCA CTCAAAATAT	3480
TCATTTGAAA TTTGCGACCA AGAAATGTTG CTTGAAAAC TTTGATAAGTT TGAAAAAGAA	3540
GCTGGTCGTG CATTAGAAGA AGGCTTGGTA CACCCTGCCT ATGACTATGT TCTCAAATGT	3600
TCACATACCT TTAATCTGCT TGACGCGCGT GGTGCCGTAT CTGTAACAGA GCGTGCAGGC	3660
TATATCGCTC GTATCCGTAA CTTGGCCCGT GTCGTAGCCA AAACCTTTGT CGCAGAACGC	3720
AAACGCCTAG GCTACCCACT TTTGGATGAA GAAACAAGAG CTAAACTCCT AGCAGAAGAC	3780
GCAGATAAAA GAGAGTGACA AATTACGAAA ATGGGCGAAC AGAGTGAGCC CTGAGCCAGT	3840
TGCCGCAGTG ATGAAGGTAT CCTTAGTGAA ACTAAGGATA CTAGGCAAAA TTGGAGACTT	3900
TTGGCTCCAA TTTTAGCAAT GAAACAACGA AGTTGGTTGC TTGCGTGCCA ATCACAATAAG	3960
GCAAAC TGGA AATAAAAAAG ATACTTTTCG GAGAAAAAC ATGACAAAAA ACTTATTAGT	4020
AGAACTCGGT CTTGAAGAAT TACCAGCCTA TGTGTGTACG CCAAGTGAAA AACAAC TAGG	4080
CGAAAAATG CGAGCCTTCC TCAAGGGAAA ACGCCTGTCT TTTGAAGCCA TTCAAAC TTT	4140
CTCAACACCA CGTCGTTTGG CTGTTCTGTGT AACTGGTCTT GCAGACAAAC AGTCTGATTT	4200
AACAGAAGAT TTCAAGGGTC CAGCAAAGAA AATTGCCTTA GATAGTGATG GAAACTTCAC	4260
CAAAGCAGCT CAAGGATTGT TCCGTGGGAA AGGTTTGACT GTTGAAGATA TCGAATCCG	4320
TGAAATCAAG GGTGAAGAAT ATGTCTATGT CACTAAGGAA GAAATTGGTC AAGCAGTTGA	4380
AGCCATTGTT CCAGGCATGT TGGATGTCTT GAAGTCACTG ACTTCCCTG TCAGCATGCA	4440
CTGGGCGGGA AATAGCTTTG AATACATCCG CCCTGTTTAC ACTTTAACTG TTCTCTTGGA	4500
TGAGCAAGAG TTTGACTTGG ATTTCTCTGA TATCAAGGGA AGTCGTGTGA GTCGTGGCCA	4560
TCGTTTTTTG GGACAAGAAA CCAAGATTCA GTCAGCATGT AGCTATGAAG AAGACCTTCG	4620
TAAGCAGTTT GTAATCGCAG ATCCATGTGA ACGTGAGCAA ATGATTGTTG ACCAAATCAA	4680
GGAAATTGAG GCAAAACATG GTGTACGTAT CGAAATTGAT GCGGATTGTC TGAATGAAGT	4740
CTTGAATTGT GTTGAATACC CAACTGCCTT CATGGGAAGT TTTGATGCTA AATACCTTGA	4800
AGTTCAGAA GAAGTCTTGG TGACTTCTAT GAAGGAACAC CAGCGTTACT TTGTTGTTTG	4860
TGATCAAGAT GGAAACTCT TGCCAACTT CATTTCTGTT CGTAACGGAA ACGCAGAGCG	4920
TTTGAAAAAT GTCATCAAAG GAAATGAAAA AGTCTTGTA GCCCGCTTGG AAGACGGAGA	4980
ATTCTTCTGG CGTGAAGACC AAAAATTGGT GATTTCAGAT CTTGTTGAAA AATTAAACAA	5040
TGTCACCTTC CATGAGAAGA TTGGTTCTCT TCGTGAACAC ATGATTCTGA CGGGTCAAAT	5100
CACTGTACTT TTGGCAGAAA AAGCTAGTTT GTCAGTGGAT GAAACAGTTG ACCTTGCTCG	5160

507

TGCAGCAGCC ATTTACAAGT TTGACTTGTT GACAGGTATG GTTGGTGAAT TTGACGAACT	5220
CCAAGGAATT ATGGGTGAAA AATACACCCT TCTTGCTGGT GAAACTCCAG CGGTGGCAGC	5280
TGCTATTCTG GAACACTACA TGCCTACATC AGCTGAAGGA GAACTTCCAG AGAGCAAGGT	5340
CGGCGCAGTT CTAGCCATTG CAGACAAATT GGATACGATT TTGAGTTTCT TCTCAGTAGG	5400
ATTGATTCCA TCAGGTCTTA ATGACCCTTA TGCCCTTCGT CGTGCAACTC AAGGTGTGGT	5460
TCGTATCTTG GATGCCTTTG GTTGGCACAT TGCTATGGAT GAGCTGATTG ATAGCCTTTA	5520
TGCATTGAAA TTTGACAGTT TGACTTATGA AAATAAAGCA GAGGTTATGG ACTTTATCAA	5580
GGCTCGTGT GATAAGATGA TGGGCTCTAC TCCAAAAGAT ATCAAGGAAG CAGTTCTTGC	5640
AGGTTCAAAC TTTGTTGTGG CAGATATGTT GGAAGCAGCA AGTGCTCTCG TAGAAGTAAG	5700
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GAAGGCAGAA GGGGTTGCTA CGGTTGATTC AGCACTATTT GAGAATGACC AAGAAAAAGC	5820
TTTGCCAGAA GCAGTAGAAA CACTCATTTC ATCAGGACCT GCAAGTCAGC AATTGAAACA	5880
ACTTTTTCG CTTAGCCAG TCATTGATGC TTTCTTTGAA AATACTATGG TAATGGCTGA	5940
AGATCAGGCT GTCCGTCAA ATCGTTTGGC AATCTTGTC CAACTAACCA AGAAAGCAGC	6000
TAAATTGCT TGTTTTAACC AAATTAACAC TAAATAAAAT TTGATAAAGC GACTTTATCT	6060
TATTACAAAG GAGAAGAAAT GGATCCGAAA AAAATTGCTC GTATCAATGA GCTTGCTAAA	6120
AAGAAAAAAA CAGAAGGCTT AACACCAGAA GAAAAAGTGG AACAAGCCAA ACTACGTGAG	6180
GAGTACATCG AAGGTTATCG CCGCGCTGTT CGTCACCACA TTGAAGGAAT CAAAATTGTG	6240
GACGAAGAAG GAAACGATGT TACACCAGAA AACTACGCC AAGTACAACG TGA AAAAGGA	6300
TTACATGGCC GTAGTCTTGA TGATCCAAAT TCATAATAAT ACTCTTCGAA AATCAAATTC	6360
AAACCACGTC AGCTTCACCT TGCCGTACTT AAGTACAGCC TGCGGCTAGC TTCCTAGTTT	6420
GCTCTTGAT TTTCAATTGAG TATATGTATT CTTTCTTTTA ACAAAGATAG ATGAAACGAT	6480
AACAAGAGA CTAGCAGTTT GTGTTTGCTA GTCTTTTTTC GCTAAAAAAG GAACCATAAT	6540
GGTTCCTAAA AACTATCATT AGTAACTTGC ACCGGCTGTA GCGTCTGCGT CACCACCGTG	6600
GCCTCCAGCA TCCCCTGAAT CAGAAGCGCC AGAAGTAGCA TCGGCGTCTC CATGACCTCC	6660
GGCAGCAGGA GCAAAATGGT CGCTACCACC CACCAAACGT TGACCAGTCT CTTT TAGGTA	6720
CCAGTCAAGC CATGGTTGGA AGTTAAAGAC GATTTCATTG ATACCAGCGT ATGATCCATC	6780
AGGATAGTAC ATTGCTTGGT AGTTGTGAGT GTTGATAACA CCTGCAGGAG AACCTGGAAC	6840
GATCGTACCG ACGTATTCTT GGTTCCTGTT GCGAAGTGT CCGATAACCC ACTCTACGTT	6900

508

CTTCATACGT GCTGGTGGAA GAGAACCATG AACAGTCGAC ATACGGCTAC CTGATTGAGG	6960
TGGTACACGT TTAGCGAACA TAGTGTCTGG ATCTTGGTGA GCGTTGTTGT AGTAGAGGAA	7020
TTGGTTGTTG TCGTCAGCGT ATGTCAATTC AAATGGCATA GCTTTCAGA ACATATCAAT	7080
TTGGTTAACT GTTAGGATAC CGTGGTCCAA TTTGACATAG GTATCACCAG AACAGCACC	7140
AGTGAATGCT GCAACTTTTT CTACCCATTC TGGATCGTCA GGGTCAACTT CTGTGATGGT	7200
TGTAGCGATT GGTTCCTCAC AATCCAAGTC TTCTGATTCG ATTGGTTTTG GTTTTTTCAA	7260
TTTCGAAACG ACTCCTACGT ATTTAACAAA GTTATCTAAG CAAGTTTCAA GGAATTTAAC	7320
AGTGCCTTCG TTGGTGATAT TTCCGTTGTT ATCAAAAGCT TCCTTAGCTT TACCAAGAAG	7380
GAATTCGTTA CCTGGAAGCG TGTAGGCATT AACACCTGGA GCATCAAGGA TTTTACGAAG	7440
GTGAACCTGA GCACGTGATG TTCCTTGGTC ATAGTATGAT GCACCCACAA TCATAACAGG	7500
CTTGTTTTCA AATGGATGAA CTTCTGATGA AAGCCATTCA AGTACAGATT TGAGTGAAGC	7560
TGAGATAGTG TGGTTATGCT CAGGAGTAGC AATGATAACA CCATCTGCAC GAGTAATTTT	7620
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TTCCAAGAGC TTACGGTTAT ATGATTGATC GTAGTTTGAT CCAACAAGTC CAACAAATTT	7800
CATCTTTTTT GGTCTCTAT CTTACAAATT TTCCAGTCA AAGTCTTCAG CATCTTTGCG	7860
AAGTAATTCT TGTGCATTAC GTAATTTTTC TGTGATTTT ACAAGATAC GGAAGTCATC	7920
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TGCTTGAAGA GAGTGTGAGA GCAAGAATTC ATCTGGAAGA ACATTTGCCT TGATTTCAGG	8040
AGCATTCAAG ATTTGACGAA GTTGCAATTG GGCACGAGAT GAACCAAGCG TACCGTAAGA	8100
AGCACCTGTA ATCATGATTG GTTTGTTCAA AAGTGGGTAA ATACCATAAG ACAACCAAGC	8160
AAGAGCGCTC ATCAAAACAG CTGGAATAGA GTGATCATA TCAGGAGTAC CGATAATAAC	8220
GCCATCTGCC TCTTCGATTT TAGCAGCAAT TTCCAATATT TCAGCAGGTA CTTGCTTGTC	8280
AGCTGGTTTG TTGAAGACAG GAATGGCCTT GATTTCAACA AGTTCAATTT CAGCTTTGTC	8340
AGTAAAGTGT TTTTGCATGT ATTGAAGCAA TTGACGTTT GTAGAACGTT TTGAATTTGT	8400
TCCAACAATA GCAATAAGTT TTAACATGAG ATTTCTTTC TCTTTTACA TAATACAATT	8460
TTAAAATTCC ATTGAAACAG TTGTCTCTAT AGAGTAGGAA TTCCTGAAGA ACAGCTTAGG	8520
TGGCCTTCTT TATCGATGAG GATGACTTCG ATGCCCTCCA AACTTTCGAC TTGCCAGAGG	8580
ATAGAAGCAG GTCTTTCTCC AAAGAGTCGA GTCGTCCAGA TTTCGCCATC GACTGATTTA	8640
TCAGAGATGA TTGTTAGACT CGCTAGTTCC GTTTCAACAG GATATCCTGT TTGACTGTCA	8700

AAAATGTGAT GGTAATCTTG TCCATCGACG GTCAGGTGAC GTTCATAAAT GCCTGAAGTC	8760
ACGACAGATT TATTGACAAC AGGGATGGTC ATTAATGAT TTCCCCTAGG ATTGGCTGGG	8820
TCTTGAATCC CGATTTGCCA TGGGTATCC CCTCTGCCT GATTTTTTCC AATGGTCAGG	8880
ATATTCCCTC CCAGATTGAT CAAGGCAGAA GTCACCCCTT CTTCCTAAG AAATGGGCA	8940
ACCTTATCCG CACTGTATCC TTTGGCTAAA CAACCTAGAT CGATCTTCAT TCCTTCTGT	9000
TTTAAAAACA CAGTAGAAGT AGAAGAATCT AACTCGATAC CATGAGGATT GATTAGAGGC	9060
AGCACCGATT CAATTTCTTG AGGCTGGGCG ACCTTGGCAT CTGAAAAACC GATACGCCAG	9120
GTTTGAATTA AGGGACCAAT GCTGATATG AGGTGGCTAG AGAGCGCTAG GCTATGCTCT	9180
AACCCAAGTG AAATCAGCTC AAACAGGTCT GGATGAACCG TGACGGGGGC TATTCCTGCT	9240
TGATAATTGA TTTCCATCAA CTCAGATTCT TGACTATTGG CGTTGAAGCG GTATTCAAGT	9300
TCTTTGAGCA AGTCAAAGGA TTTTGGAGA AAGATATCGG CTTGCTCATC CACTAATGAA	9360
ATAGTGATAG TAGTCCCAT TAGCCGTCA GAATGTGAAC GAAGAGTCAA GCTACCAACT	9420
CCTTCTCTT ATAGAAAATA AGTTGTAATA TCAAATAATC ATCTAAATTG AAGCCCTTAC	9480
ATTTCATTTT CATGTTATTA TAATACCATA AAGTTAGAAT TTTCAACAAC AAAATTTGGA	9540
AAAAGTCAAG AAATATGCTC ATAAAATTCA TCAGGCTTGA AAACAGGATA AATGGGGAAT	9600
TATTTTGTAT AAAAAATGCT GAAATAATAG TACCCCTT GTAAACGCTA ACGGTAAATG	9660
GTATACTAGT AAGGTAAATT TAGAATGAAG GCAGGAAATT TTTATGAGTA AAATCGTTGT	9720
AGTCGGTGCT AACCACGCTG GTACAGCATG TATCAATACC ATGTTGGATA ATTTTGGAAA	9780
TGAGAACGAA ATTGTTGTAT TTGACCAAAA CTCTAACATC TCTTCTCTAG GATGTGGAAT	9840
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AAAATTGGAA GCTAAAGGTG CTAAGTTTA CATGAATCA CCTGTTCTTT CAATCGACTA	9960
TGATAACAAA GTAGTTACAG CGGAAGTTGA AGGAAAAGAG CACAAAGAAT CATACGAAAA	10020
ATTGATTTTC GCTACAGGCT CTACACCAAT CTTGCCACCA ATCGAAGGTG TTGAAATTGT	10080
TAAAGGAAAC CGCGAATTTA AAGCAACTCT TGAAAACGTA CAATTCTGTA AATTGTACCA	10140
AAATGCTGAA GAAGTTATCA ATAACTTTC TGACAAGAGC CAACACCTCG ACCGTATCGC	10200
CGTTGTTGGT GGTGGTTACA TCGGTGTTGA ACTTGCTGAA GCCTTTGAAC GTCTTGGA	10260
AGAAGTTGTC CTTGTTGATA TCGTTGATAC TGTCTTGAAC GGTACTATG ACAAAGACTT	10320
CACACAAATG ATGGCGAAGA ACTTGGAAGA TCACAACATC CGCTTGGCTC TAGGTCAAAC	10380
TGTTAAAGCA ATCGAAGGTG ACGGTAAAGT TGAACGCTTG ATTACTGACA AAGAAAGCTT	10440

510

TGACGTGGAT ATGGTTATCC TTGCAGTTGG TTTCGGTCCA AACACAGCCC TTGCAGGTGG	10500
TAAGATCGAA CTCTTCCGCA ACGGTGCCTT CCTTGTAGAC AAGAAACAAG AAACATCTAT	10560
CCCAGACGTT TACGCTGTTG GTGACTGTGC GACTGTTTAT GACAATGCTC GTAAAGATAC	10620
AAGCTATATC GCTCTTGCTT CAAATGCTGT GCGCACTGGT AACGTTGGT	10669

(2) INFORMATION FOR SEQ ID NO: 58:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7542 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

CGCGCTAATA GATACTTTAT GATAGAATAA AGAACAAGAT TGACAAGTAA GAGGAAACAT	60
TATGCAAAAT CAAACACTCA TGCAATACTT TGAATGGTAT CTGCCCCACG ACGGTCAACA	120
CTGGACGCGT CTGGCTGAAA ATGCTCCACA CCTAGCTCAT CTGGGGATCA GTCACGTCTG	180
GATGCCACCA GCCTTCAAGG CAACCAACGA AAAAGATGTC GGCTATGGGG TCTATGACTT	240
ATTTGACTTA GGAGAGTTCA ACCAAAAAGG GACTGTCCGC ACCAAGTATG GTTTCAAAGA	300
AGACTATCTT CAAGCCATT C AAGCCCTTAA AGCACAGGGA ATTCAACCTA TGGCCGATGT	360
AGTTCCTAAC CACAAGGCTG CTGCCGATCA CAGGGAAGCC TTTCAGGTTA TCGAAGTTGA	420
TCCTGTAGAC CGTACAGTTG AACTTGAGGA ACCCTTCACC ATCAATGGCT GGACTAGTTT	480
TACCTTCGAT GGTGCGCAAG ATACCTATAA TGGCTTCAC TGGCATTGGT ACCACTTCAC	540
CGGTACAGAC TACGATGCCA AACGCAGTAA ATCTGGGATT TATCTGATCC AAGGGGACAA	600
CAAGGGCTGG GCCAACGAGG AATTGGTCTA TAACGAAAAC GGAAACTACG ACTACCTCAT	660
GTATGCCGAC CTAGACTTTA AACATCCTGA AGTCATCCAA AACATCTATG ACTGGGCTGA	720
TTGGTTCATG GAAACGACTG GTGTAGCTGG TTTCGGTTTG GATGCCGTTA AGCATATTGA	780
CTCTTTCTTT ATGCGCAACT TCATCCGCGA TATGAAGGAA AAATACGGTG ACGATTCTTA	840
TGTTTTTGGT GAATTTTGGG ACCCAGACAA GGAAGCCAAT CTGGACTATC TCGAAAAAAC	900
GGAAGAACAC TTTGACCTTG TCGATGTTCT TCTCCACCAG AATCTCTTTG AAGCCAGTCA	960
AGCTGGCGCA AACTATGACC TTCGTGGCAT TTTCACAGAT AGCCTGGTTG AACTCAAGCC	1020
TGACAAGGCT GTGACTTTTG TCGACAACCA CGATACCCAA CGAGGACAAG CCCTTGAGTC	1080
TACCGTTGAA GAATGGTTCA AGCCAGCAGC CTATGCCCTC ATTTTGTAC GCCAAGACGG	1140
CCTTCCATGT GTCTTTTACG GAGACTACTA TGGGATTCTA GGGCAGTATG CTCAAGAAGA	1200

511

TTTCAAAGAA ATCCTTGACC GCCTCCTAGC CATCCGAAAA GATTTGGCCT ATGGAGAACA	1260
AAATGACTAC TTTGACCATG CTAACGTAT CGGTGGGTA CGTTCAGGTG CTGAAAATCA	1320
ATCCCCAATC GCAGTCCTTA TCTCAAATGA CCAAGAAAAC AGCAAGTCAA TGTTTGTGG	1380
TCAAGAATGG ACTAATCAAA CCTTTGTAGA TTTACTTGGT AACCACCAAG GTCAAGTTAC	1440
AATTGATGAG GAAGGTTATG GACAATCCC TGTCTCAGCT AGATCCGTAA GTGTCTGGGC	1500
AGTCAATACC ATCTAATAGC TCATAATAAC CAAGCTAGGT CCAAGCGGAT TTGGCTTTTT	1560
TGTATTACAA AAAAGACCTA CCCAAATGGA TAGATCTTTA CTTGATTACA ATTTACCTGC	1620
TACTGCATCC AACAACTCTT GGATCTTAGG TTGGTTGCTT CCTCCTGCCA TGGCCATATC	1680
TGGTTTACCA CCACCACGTC CATCGATGAT TGGTGCTAAT TCTTTGACAA GGTTCCTGC	1740
ATGAAGGTCT TTTGTCTTGC TTGCTACAAG GACATTGACT TTGTCACCGA TAGCGGCAAC	1800
TAGGACAAGA AGATCAGAGT AGTCTTTTGT TTTCCAGTTA TCTGCAAAAG TACGAAGGGC	1860
ACCGGCATCG GATACAGACA CTTGACTAGC AATGTAACGA TGACCGTTGA CTTCTTAAC	1920
ATCTTTGAAG ATATCGCCTG CGGCTGCAGC TCGGCTTTT TCTTTCAACT CAGCATTTTC	1980
TTTTTGAAGT TGACGAAGTT GTTCTTGAAG TCCTTCTACC TTGTGAGGTA CTTCTTGAC	2040
TTGAGGTGCT TTCAAGGTTG CTGCGATAGC TTTAAGAGCA TCCTCTTGTT CACGATAGGC	2100
TTCAAAGGCT TCCTTACCAG TCACTGCCAA GATACGGCGA GTTCCTGAAC CGATTCTTTC	2160
TTCTTTGACA ATTTTGAAGA GACCAATCTC AGAAGTGTG TCAACATGAG TACCACCACA	2220
AAGTTCAATA GAGTAGTCAC CGATAGTCAC GACACGAACT TCCTTGCCGT ATTTCTCACC	2280
AAAGAGGGCC ATAGCTCCCA TTTCTTTAGC AGTGTCATA TCCGTTTCAA CTGTCTTCAC	2340
TTCAAGTGCT TCCCAAAATT TCTCGTTAAC TTGCTGTTCA ATCGCACGAA GTTCCTCAGC	2400
AGTTACTGCT TGGAAGTGGG TAAAGTCAAA GCGAAGGAAT TCAACTTCGT TAAGAGATCC	2460
TGCCTGTGTT GCGTGGTTTC CAAGGATATT GTGAAGGGCA GCGTGAAGCA AATGAGTCGC	2520
AGTGTGGTTT TTCATGACAC GGTGACGGCG ATTGCTATCA ATTGCCAAGG TATATTCTTG	2580
GTTCAGGCA AGCGGTGCAA GGACTTCAAC TGTATGAAG GCTTGACCAT TTGGGGCTTT	2640
CTGAACATTG GTCACAGTAG CCACAACCTT ACCTGACTCA TCCAAGATT GTCCGTAGTC	2700
AGCTACCTGT CCACCCATTT CAGCATAAAA TGACGTTTCC GCAAAGATAA GAGAGGCAGT	2760
TCCTTCTGAA ACAGCTCCTA CTTCTGCATT GTCAGCAACG ATAGCTACCA ATTTAGAAGA	2820
CAATTGGCTA GCATTGTAGT TGAAGACACT TTCTACAGTG ATGTTTTGAA GAGTTTCATT	2880
TTGCATACCC ATTGAGCCAC CCTTGACAGC TGACGCACGC GCGCGTTCTT GCTGTTCTTT	2940

512

CATGGCTGCT TCAAAACCTT CACGGTCTAC AGTCATACCA GCTTCTTCAG CGATTCTCTC	3000
AGTCAATTCA ACTGGGAACC CATAAGTATC ATAGAGTTTG AAGACATCTG AACCAGCGAT	3060
AACAGATTGA CCTTTTCTTT TCAAGTCTGC TACAATGCCT TGGGCAAAGT GTTGACCTGA	3120
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TTTCTCAAGC ACTTCTGGGT AGTAGCTTTC CATGATTTT CCAACAGTTG GAACCAATTT	3240
GTAAGGAAA GGCTCGTTGA TACCCAATTT TTGACCATGC ATAGAAGCAC GACGGAGAAG	3300
ACGACGAAGA ACATAACCAC GACCTTCATT TCCTGGAAGG GCACCATCAC CGATAGCAAA	3360
TGAAAGAGAA CGAATGTGGT CTGCGATAAC CTTGAAGCTC ATGTTGTGCG CATCTTGGTC	3420
ATAAACCTTA CCAGACAATT TCTCGACTTC ACGGATAATC GGCATGAAGA GGTCCGTTTC	3480
AAAGTTGGTC TTAGCCCTTT GGATAACGGC CACCAAACGC TCCAAACCAG CGCCCGTATC	3540
AATGTTCTTA TGTGGCAATT CCTTGTATTC GCTACGAGGA ACAGCAGGGT CTGCGTTAAA	3600
TTGTGACAAA ACGATGTTCC AGATTTCAT ATAACGGTCG TTTTCAATAT CTTCTGCAAG	3660
CAGGCGAAGA CCGATATTTT CTGGGTCAAA GGCTTCCCCA CGGTCAAAGA AGATTTCGT	3720
ATCTGGTCCA GAAGGTCCCG CACCGATTTC CCAGAAGTTG TCCTCAATTG GAATCAAGTG	3780
ACTTGATCC ACTCCCACTT CAATCCAGCG GTTGTAAAGAA TCTTTATCGT CTGGATAGTA	3840
GGTCATGTAA AGTTTTTCAG CAGGGAATC AAACCATTC AAGGCTGTC AAAGCTCATA	3900
AGCCCAAGTG ATAGCTTCGT CACGGAAGTA ATCCCCGATA GAGAAGTCC CCAGCATTTT	3960
AAACATGGTA TGGTGACGCG CGGTCTTCCC TACGTTTTCG ATGTCGTTGG TACGGATAGC	4020
CTTTTGGGCA TTGGTAATAC GTGGATTTTC AGGGATAATG GTCCCGTCAA AGTATTTCTT	4080
AAGGGTTGCT ACCCCAGAGT TGATCCACAA AAGAGTTGGG TCATTTACAG GAACCAAAT	4140
TACTGATGGT TCTACTGAGT GACCTTTGGT CGCCCAGAAA TCAAGCCACA TTTGGCGTAC	4200
TTGTGCACTA GATAGTTGTT TCATATTGTC TCCTTATTCA CTTGTTTAAT GTGATTGGCT	4260
TTCCAGCATT TCCACATAGT CAATCGCGAC ACAGAGGGAA ATGACTAGGT CTGCATAAGC	4320
GTCTTCAAGA ACCGTTACGG TATAGGTAGA AGTCAGATGG AAGAGTTCCT TCTTAATTTC	4380
CGCAATCAAC TGATCGCGAT CATCCAGCAA TTTGAAATTC AAATCCCAGA TATTGCCCTC	4440
GATACGAAGA CCTAGATTAT CAAACTCATA CTTATCTCGC CAGAAGGTCA ACTTCTTACG	4500
AATGACAAA CTCGAGCCAT CCCGAAGCTG AATTTCAAAA CGAGGAAGCA AGGTCAAGAT	4560
TTCTTTACTA ATCTCACTGA CTTGTTCACC AGCCGCATCA TAGATGGTAA AGGTTTTAGG	4620
AATCTTAAAA AATGATCCCT CCACCTGATA GGCAATTTCT CCCCTGTCAT CCTTGATAGC	4680
GAAGCGTTCG CCTCCAAGAC GAACTTTTG TTTGACAAGA AATGTTTCA TCAACACCTC	4740

513

CAAAAATCAA AAGACAAGCT CATATCACGA AGGGCGAAAA ACCGCGGTAC CACCTTCATT	4800
CAATGAACTT GTCATTCTCT TGTTCCTATG CAATTGTATG ATTGAGTAGC ATGACTTCCT	4860
AGCTTAGATG GCTCGCAGCA CCGCCATTTC TCTGGACTAA GACAAGTGAA AATCAATTCT	4920
CAACTTTCCT ATTATAACGT TTTTAAAGC TTGCGTCAAC TGGAATGAT CTCCGTTGAA	4980
TTAGACCAAT TCCCTACATC TCTGATTACT TTTTCAGGAT ATATTTTTTC TTAGTCCAT	5040
TTTTCTTTTT ATCCCAAATT TTCATATTAC TAAACACAGC TACTAGAATA TTTCCAAATA	5100
TAAAGGTGCC TATCACCCAA TATATGGACT CAGTTGTTAG GTATTGTCGA TCCAAGCCAT	5160
CCTTTAAATG GAATAGTATA GCAGTTGGT TAACAATCAT AAAGGTTGGC CAGAAACTTT	5220
TTTTGAAAAA AGTAGACATT TTCATTATTT GTTGCCGCTT TCTGTAAGGT TAATACTCAA	5280
TAAAAATCAA AAAGCAAAT AGGAAGCTAG CCTCAAGCTG TACTTGAGTA CGGCAAGGCA	5340
ACGCTGACGT GGTTTGAAGA GTATAGGCTT AGTATACTAC TAGGCAAGCA AATAAACAAA	5400
TAAACAATA GAATAGAAAA AGATAGGGCT CTA AAAACTG ACTTCTATTC CTTAAAAACG	5460
AACCAGCTTG ACTGATTCGT CTTCTTACGT TTATCTCCTA CTTCCGATAC ATTTTAAACT	5520
GTAGGAAGAG GTGCGTATAT TTCCCTGTCC ATTTATGGTC AAATTTCTCA TAAACTTCTA	5580
GGTGTTCAT GGTTCACAA TCGGGATAGA AGGCCTTATC TTCTTTGTG TCCTCTGGGA	5640
GCAATTCTTT CGCTGGTAGG TTTGGTGTG AATAGCCGAC ATACTCCGA TTTTGAGAG	5700
CATTTTCAGG TTTCAACATA AAGTTGATAA AGGCATAGGC TGAGTTTGG TTTTAACTG	5760
TTTTGGGAAT GACCATATTG TCAAACCAA GATTGCTGGC CTCTGTCGGT ACCACATAAC	5820
GTAGATTTTC ATTTTCTTCT AACATTGGC TGGCTTCACC AGAGAAGGC ACGCCGATTG	5880
CAACATTATT CTGAATCATA TAGCCCTTCA TCTCGTCCGC AACGATAGCC TTGATATTTG	5940
GAGTCAGTTT GTAGAGCTTA TCCACTGTCT CTTCCAACG CTGCAGATCC TTGGAGTTGA	6000
GGCTGTAGCC GAGGGAATTG AGTCCTAGTC CCAGCACCTC ACGCGCCCA TCAAAGAGCA	6060
TGATAGAATT CTTATACTCC GGCTTCCAAA GGTCAATCCA ATGCTCAGGC GCTTCATCTA	6120
CCATGGTTTC GTTGAGACA ATTCCCTAAGG TTCCCCAGAA GTAAGGGATG GAGAATTTAT	6180
TACCTGGGTC AAAGGACTGG TTGAGAACT CTGGTCCGAT ATTTTCGATT CCTTCAATTT	6240
TTGAATAATC AAGCGAACC AAGAGGTCTT CGTCCTTCAT CTTGTTAATC ATGTATTCAC	6300
TTGGAATGGC AATATCGTAG GTCGTTCCAC CCTGCTTTAT CTTAGTGATC ATGGCTTCGT	6360
TGGAGTCAAA AGTCTCGTAC TGAACCTGAA TTCCTGTTTC TTCTGTAAAC TGAGTCAAGA	6420
GTTCAGGATC GATATAGTCT CCCAGTTAT AGATAACCAA TTTTGGACTA TCTCGACTAT	6480

514

TGATTTTACT ATCTAAATGA GTCGCAATTC CCCACAAGAC AAGGATAATC GCTGCAATTC	6540
CTGCTAAAAA TGAATAGATT TTTTTCATGC TTGCTCCTCC TTCTCACGAG AGATAAAGTA	6600
ATAACCTACA ACTAGGATAA TACTAAAGAG AAAGACTAGA GCAGACAGGG CATTGATTTC	6660
TAAGGAAATC CCCTTGCGAG CACGAGAGTA AATCTCGACT GATAGGGTTG AAAAGCCATT	6720
TCCTGTTACA AAGAAGGTCA CGGCAAAGTC ATCTAACGAA TAGGTGAAGG CCATGAAATA	6780
ACCAGTAATG ATAGACGGAG TCAGGTAAGG AAGCATGATT TCCTTGAACA TCTGAAATTG	6840
ACTAGCTCCC AAGTCATAGG CCGCATGAAT CATGTCGCCA TTCATTTCTT TGAGTCGAGG	6900
CAAGACCATC AAGACCACGA TAGGAATGGA GAAGGCCACG TGACTAGATA GAACGGTCAA	6960
AAAGCCAAGT GAAAACTTGA GTTGGGTAAA GAGAATCAAG AAGCTAGCAC CAATCATAAC	7020
GTCAGGCGCA ACCATGAGGA TATTATTGAG TGATAGAAAG GCTTCTTGGT ATTTCTTACG	7080
AGACTGGTAG ATGTAAATGG CACCAAAAGT CCCGATAATG GTCGCTATCA AGGCTGATAG	7140
GAAGGCCAAG AAAAATGTCT GAGCCAAAAT CAGCATGAGT CTCCCATCTC CAAACATGGT	7200
TTCAAAGTGA GTCCAGCTAA AACCTGTAAA GCTATTTCATA TCATCACCAG CATTAAAGGC	7260
ATAGCCAATC AAGTAAAAGA TAGGCAGGTA GAGGACCAGA AAGACCAGTC CCAGATAAAG	7320
GTTGGCAAAT TTTTTCATCG TTCTCTCCTT TCCTTAGTCA CCCACATGGT GATGAACATG	7380
GTCAGGATGA GAATCACACC GATGGTTGAA CCCATACCAT AGTTGTCAAT GTTAGAAAA	7440
TTCTGCTCAA TAGCCGTCCT CAAGGTGATA ACGCGTTCCC ACCAATCAAA CGGGTCAGCA	7500
TGAAGAGACT CAAACTTGGG ATAAAGACCG ACTGAACCCC GG	7542

(2) INFORMATION FOR SEQ ID NO: 59:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9223 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

AAAACCAAAT TCCGGTATTT TAACCTATGC TGTAATACC ATGAAGTCTG TCATGACAGA	60
TCAGGTCTAT AACATTAAGG TTGAGACAGA AAATGGAAAT TATGTTGGTG AAGCTAGCCA	120
TGTTTTGGTC CTTTGTACAA ATTACTTCGC TGATAAGAAA ATCTTTGAAG AAAACAAGGA	180
CGGCTATGCC AACATTTTGA TTCTGAAAGA TGCCTCTATA TTCTCCAAAT TATCCGTCAT	240
TCCTGATTTA TTAAGGGG ATGTTGTCGC AAATGATAAT ATCGAGTATA TCAAAGCGCG	300
TAATATTAAA ATCTCTTCAG ATAGTGAATT GGAGTCAGAT GTTGACGGAG ATAAATCAGA	360

515

TAACCTACCT GTAGAAATCA AAGTCCTAGC TCAGCGAGTA GAAGTATTTT CAAAACCGAA	420
AGAGGATTAG TATATAGAGA AAGCCTTTTT TAAGGCTTTT TGTATACTTT AAAAGATAGT	480
TCCTTTAACA ACGGACATTC CTTGCAAATA GTTTTACAAA AATAGTATAC TGGATTTCATT	540
GAGTTTGAAG ACGTTTGGCT AAAATTGAA TGAATACTTT AGGAGACAAA TTGATGGAAT	600
TGAGTGCTAT TTACCATAGG CCTGAGTCGG AGTATGACTA TCTTTATAAG GATAAGAAAC	660
TCCATATTCG AATTGGAATC AAGAAAGGGG ACATTGAAAG CATCAACTTG CACTATGGGG	720
ACCCTTTTAT CTTTATGGAG GAGTTTATC AGGATACAAA AGAAATGGTC AAGATAACTT	780
CTGGTACCTT ATTTGACCAT TGGCAGGTTG AAGTGTCAGT TGACTTTGCA CGTATCCAGT	840
ATCTCTTTGA GCTCAGAGAT ACAGAAGGTC AAAATATTTT GTATGGCGAT AAAGGGGTG	900
TGGAATTC TCTAGAAAT CTTTCATGCAA TTGGGAATGG ATTTAAGTTG CCTTAGCTTC	960
ATGAGATTGA TGCTGCAAG GTTCCTGACT GGGTTTCAA TACGGTATGG TATCAGATAT	1020
TTCTGAAAG ATTTGCCAAT GGCAATGCTC TATTAAACCC AGAAGGGACT TTAGACTGGG	1080
ATTCATCTGT CACACCTAAG AGCGATGATT TCTTTGGTGG TGATTTACAG GGGATTATTG	1140
ATCATATGAA TTACTTGCAA GACTTGGGTA TTACTGGACT ATATCTTTGT CCCATCTTTG	1200
AATCTACAAG CAATCACAAG TACAATACGA CAGATTACTT TGAAATTGAC CGTCATTTTG	1260
GAGACAAGGA GACCTTTCGG GAACTGGTGG ATCAAGCGCA TCATCGTGGC ATGAAAGTCA	1320
TGCTGGATGC GGTATTTAAT CATATTGGTT CGCAATCTCT TCAATGAAA AATGTCGTCA	1380
AAAATGGTGA ACAGTCTGCT TATAAGGATT GGTTCATAT TCAACAATTC CCAGTGACAA	1440
CTGAAAAGCT AGTTAATAAG AGAGACTTAC CCTATCATGT TTTTGGTTTC GAGGACTATA	1500
TGCCTAAGCT AAATACAGCC AATCCAGAGG TCAAGAATTA TCTTTTAAAG GTTGCGACTT	1560
ATTGGATTGA AGAGTTAAT ATCGATGCTT GGCCTTTGGA TGTGGCTAAT GAGATTGACC	1620
ATCAGTTCTG GAAGGATTTT CGTAAGGCAG TTTTAGCTAA AAATCCTGAT CTTTATATCC	1680
TAGGAGAAGT CTGGCATACT TCTCAGCCTT GGCTAAATGG AGATGAGTTC CATGCCGTCA	1740
TGAATTATCC TTTATCTGAT AGTATCAAGG ACTATTCTT ACGAGGAAT AAGAAGACAG	1800
ACCAGTTCAT CGATGAAATC AATGGAGAGT CTATGTATTA CAAGCAGCAG ATTTTCAGAGG	1860
TCATGTTTAA TCTCTGGAT TCACATGATA CAGAGCGAAT CCTGTGGACG GCCAATGAAG	1920
ATGTTCAACT GGTAAATCA GCCTTAGCCT TTCTCTTTT ACAAAAAGGA ACACCGTGCA	1980
TTTATTACGG AACCGAGCTA GCCTTGACTG GAGGACCAGA TCCAGATTGT CGTCGTTGTA	2040
TGCCTTGGGA ACGTGTATCA AGTGACAATG ATATGCTGAA CTTTATGAAG AGGCTGATTA	2100

516

AAATTCGGAA ATACGCGTCA GTAATCATT	CGCATGGCAA GTATAGCCTT CAAGAAATCA	2160
ACTCTGATCT AGTAGCTCTG GAATGGAAAT	ACGAAGGACG GATCCTCAAA GCAATATTCA	2220
ACCAATCAAC AGAAGATTAT CTTTATAGAGA	AAGAAGCAGT AGCACTAGCA AGCAATTGCC	2280
AAGAATTGGA TAATCAGCTT GTCATCTCTC	CAGATGGATT TATGATTTTC TAAAAACTAG	2340
TTGATGAAGA TPTATGGTACA TTTCATACCT	TATATAGTAT AATAAGGCTA GTTACTAAAC	2400
TTGTAAAGGA GAACTTAAAT GAATTGTAGA	GGACATGAAA CAAGACAAAG AATTGTTAGA	2460
GATTTTGAAG TTCAGCCTAA AGCACATATT	AAGCTGTTAG CAAATCAACA AAAACATAGT	2520
GATGCAGGAG CAACTATTGA AGATGAATAT	TATGTATTTA TCGCTGAGAG TAAAATTGAT	2580
GGCAAGAAGG AAGTTATTCA GTGTTGCATG	GGTGGGCAA GGGATTTTTT AGAACTAATT	2640
AATCACAAAG GGCTACCTCT TTTAATCCG	CTGTAGGTG ATTCTCATGT AAATAATAGA	2700
CAAGAATATG ACAATACAGG GAGTGGAAAT	TTATAACCTG AAAAGTGGAA TGAAACTGCA	2760
AAGCAGCTTT ATAATGCTAT AATGTGGTTG	ATTATTTTAT GGAATGCTAA GCCGGATACA	2820
CCTTTATTTA ATTTTAAAGA CGAAGTAATT	AAGTATAAAA CATATGAGCC TTTTGAAAGC	2880
AGTATAAAAA GAGTAAATAC TACTATAAAG	AATGGTAGTA AAGGGAAAAC TCTGACTGAG	2940
ATGATTAATG GCTACAGAGC GGATAACGAT	ATTAGAGATG AAATTGTAA CTTTAATATT	3000
CTGAAAAATA AAATTCGTGA TATGAAAAAC	CAACAAGGAA ATACAATGGA ATCTTACTTT	3060
TAGTTATTGT TGAATTTTGG GTATTCTATA	AAATATCCTA ATTGAGATT AAATAGTAGA	3120
CTATACAATA TAGTTAAAAT ATCAGTAAAA	ACAACACTTT ATTGAGGTAT TGGATACGCT	3180
TTGCTAATAG CCTAATAATC ACATGTGGAG	TGTTGCTACA ACGAAAAAGG TGATAATCCT	3240
TGATTTCAAG CTATTTTATA AGCATTTTGT	CTTTGTAGAT AAAGGCAATT TTGACAATAA	3300
AAATCCTAAA AGGTGAATCG TTATAGATGT	ATTTGTAGAT ATCGTTTGGC CATCGAAAAA	3360
ATTAATACAA GAATAAATAT TTATAGCTCT	TTAGGTGACT TTTATAGAAG TAAAGTTTAG	3420
GATAGAAAAA CAAGAAATAA CGCACCATT	TTGGTGGGTT ATGCTTTTTT ATGCTATAAT	3480
GGATTTATAA AAATAAAGGA GTTTGCTATG	ATTGGAAAGA ACATAAAATC CTTGCGTAAA	3540
ACACATGACT TAACACAAC	CGAATTTGCA CGGATTGTAG GTATTTACG	3600
AAATAGTCTG	AAATAGTCTG	3660
AGTCGTTATG AAAATGGAAC	GAGTTCAGTC TCTACCGAAT TAATAGACAT	3720
CATTTGTCAG	AAATGCTCAA TCCTGTTGAA	3780
AAGTTTAAATG TATCTTATGT	CGATATTGTA GGAGAAGATA	3840
ATGATGAGTC	TAATCCTTGG	3900
ATTTTAAATGA GTGATGATCT	ATCTGATTG ATTCATACGA ATATCTATCT	
AGTAGAACT		

517

TTTGATGAAA TAGAGAGATA TAGTGGCTAT TTGGATGGAA TTGAACGTAT GTTAGAGATA	3960
TCTGAAAAAC GGATGGTGGC CTAATGGAAA TCCAAGATTA TACTGATAGT GAATTCAAAC	4020
ATGCTTTAGC AAGGAATCTT CGTTCACTGA CAAGAGGAAA AAAGTCCAGT AAGCAACCTA	4080
TAGCGATTTT GCTTGAGGG CAAAGTGGTG CCGGTAAGAC TACAATTCAT CGTATTAAAC	4140
AGAAAGAATT TCAAGGAAAT ATTGTTATCA TAGATGGTGA TAGTTTTCGT TCTCAGCATC	4200
CACACTATTT AGAAGTCAG CAAGAATATG GCAAAGACAG TGTAAGATAT ACCAAAGATT	4260
TTGCAGGAAA AATGGTAGAG TCTTTAGTAA CAAAATTGAG TAGTTTGAGA TACAATCTTT	4320
TGATAGAGGG AACTTTACGA ACAGTTGATG TTCCAAGAA AACAGCACA CTCTTGAAAA	4380
ATAAGGGATA TGAAGTACAA TTGGCCTTAA TTGCGACAAA GCCTGAATTG TCGTATCTAA	4440
GTACTCTTAT CCGTTATGAA GAACTGTACA TTATCAATCC AAATCAAGCA CGCGCAACTC	4500
CAAAAGAACA TCATGATTTT ATTGTAAATC ATCTAGTTGA TAACACACGA AAATTGGAAG	4560
AACTAGCTAT CTTTGAAAGA ATTCAAATTT ACCAAGCAGA TAGAAGTTGT GTATATGATT	4620
CAAAAGAAAA TACAACTTCA GCAGCAGATG TTCTTCAAGA GTTACTCTTT GGGGAGTGA	4680
GTCAGGTAGA GAAGGAGATG TTGAGGTGG GGGAAAAGAG ACTTAATGAA TTACTTGAAA	4740
AATAACAAT TGATATTTTT AGGAGAATAG AAATGAGAGG GTTTAATAAC AAGATAAAGT	4800
CTGTTTATCA AGAACTAACA AATCCAAAG AGAAATTCGG TAGCTTTCAC AAGACTTTAA	4860
TTCAATTGCA TACACCTGTT TCTTATGATT ACAAGCTATT TTCTAATTGG ACTGCAACGA	4920
AATATAGAAA AATTACTGAA GATGAATAT ATGATATATT TTTTGAAAAT AAGAAAATAA	4980
AAGTTGATAA GACAATTTTT TTTAGTAATT TTGATAAGGT TGTTTTTCT AGTTCAAAAG	5040
AATATATTAG TTTTCTTATG TTAGCAGAGG CAATCATAAA AAATGGAATA GAAATAGTTG	5100
TAGTAACTGA TCATAACT ACTCAAAGGTA TTAATAAGTT ACAAATGGCA GTCTCAATCA	5160
TAATGAAAAA TTATCCGATT TATGATATAC ATCCTCATAT TTTACATGGA GTAGAAATTA	5220
GTGCAGCAGA TAAATTGCAT ATTGTATGTA TATATGATTA TGAACAAGAA TCATGGGTTA	5280
ATCAATGGTT AAGTGAAAAT ATTATAAGTG AGAAAGATGG AAGTTATCAA CATTCACGTA	5340
CTATAATGAA GGATTTCAT AATCAAAAA TAGTTAACTA TATTGCTCAT TTCAATAGTT	5400
ATGACATTTT GAAAAAGGT TCTCACTTAT CAGGTGCATA TAAACGAAAA ATTTTTCTA	5460
AAGAAAATAC ACGATTTTGG AGTTTAATAT TAACTCGAAA GAATCTTCGC AACAACTGA	5520
TATTCCTAT AAAGAAGTTG GTGTATTAAG TTTGGGACAA AAAGTTGTAG CCATGCTTGA	5580
TTTTTTATTA GCATATAGTG ATTATTCTAA AGACTTCAGA CCATTGATTA TTGATCAGCC	5640

518

TGAAGACAAT CTAGACAATC GTTATATTTA CAGGCATTTA GTTCAGCAGT TTAGAGATGT	5700
GAAAGCTCAA CGTCAAAATTA TTTTAGCAAC ACATAATGCT ACAATTGTAA CAAATTCTAT	5760
GACAGATCAA GTTGTATTAT TGGAGTCAGA TGGAGTTAAC GGATGGATTG AATCACAGGG	5820
ATATGTTAGT GAAAAATATA TAAAAAATCA TATCATCAAT CAATTAGAGG GAGGAAAAGA	5880
TTCTTCAAG CATAAAATGT CTATATATGA GACGGCTTTA TCAGAGTAGA GTCAGAAAAA	5940
GTAGGTTAGA AATTTAGCCT ACTTTTTTCT TTGTCCGACA GGCATAGTGT ACATCTGAGG	6000
TCCAAGTCCT CTGTGGATAT TTGCTGCAGA TGAACCAAT AGCGACTCCT AAGCCTGAAT	6060
ATCGTGAGGT AGGGGGGATA GGAAGGAATT AGCGAAATCA AGGTTCTACA AACAGAATCG	6120
TGACTTGAAG CCATATATAG CGGATGAGGA ACTCTAAAAT CCAAATAGGT GTCGTAACCT	6180
ATATACGTAA ATTACGAGAG TAAACTAGGA AAGATGTACG GCTATTCCG TGAGCGTTTA	6240
GGAGCTAGTA CAACGAATCA TGGGAGTCAG CTGAACACAT AGTATTGAAG AAATTTCTGT	6300
AATGGAATG GAGCGAAGAA GTGAACAAAT AAATGAATAC CTCTCTAATT AAATTTGTCA	6360
ATTCTAATTC CTGGTATGAA AAGACAGTGA CCTGAAAATG TAAACGATGG GAGCTGATCA	6420
TAAATATAGG ACGGTACATG CAGTGGTGTT AGAGATTAGT CCTTACTTGA TTTGTGATAA	6480
CTTCCCCAAA TTTCTTCTGC TATACTTTTC TCAACTTTTA AAAATCCAAC TAAGAATTTT	6540
ACCTGGGGGT TTGGGGGCGG AGCACTAAGT TATCTTATCG TTAGCTGTCA AAAGTGGTAG	6600
GTTTTGATAG GCTGGCGATA TGATTTTGGG GATATTGTGG ACACAATATC TGAGCTCGCA	6660
AAGCCTTACA AGAATGAAAA TCAGTTGTTG GAAAAGTGA CTGACATTGT ATGGTAGCTC	6720
ACATTGTCTAG TACAAGTATT TTGGAAAGGA AGTAGCAGTA TGAACGAGA TGTGCGTGAT	6780
ATTCGGAAC AATTTGTTTT AACAGAAGCA GAAGAAAAGC AAATCTAGC TTTGATGAGA	6840
GAGCGGGGAG AGACTAATTT CTCTGATTTT CTTGTAATA GTTACTTTC CTCTGATTTA	6900
CAAAAACAGA TGGAGACATG GTTTGCCCTC TGGCAATCCC AAAAAGTAGA ACAAATCAGT	6960
CGTGACGTTT ATGAAGTTTT AATCTTGGCA CAGTCAGAAC GTCAAGTCAC CCAAGAGCAT	7020
GTATCTATTC TCTTAACGTG CGTGCAGGAA TTGATTCAAG AGGTTGCAA CACCATACCC	7080
CTCAGTAAAG AATTTCTGTA GAAGTACATG AGGTAAGCAC ATGGAACATC GTTACCGAAC	7140
CAATCTCAAG AAAGTGTTTT TGTCTGATAG TGAGTTGAAC CAACTAAATA TAAATATCGA	7200
TCAAAGTGGT TGTAAATCCT TTTCTGAATA TGCGAGACGA ACTCTACTCG ATCCTGGTAT	7260
GAATTTTATC ACGATTGACA CAAACGGTTA CCAAGATTTA GTGTTTGAGT TAAAGAGGAT	7320
TGGCAATAAT ATCAACCAGA TTGCTCGAAG TGTTAATCAA TCTCAGTTAA TTTCTGGTGA	7380
AGAATTGCAG GAGTTGAAAA AAGGAATTGG TGAATTGATA AAAGAAGTTG ATAAGGAATT	7440

519

TAATCTGCAA GCGCAGAAGC TAAAGGAGTT CCATGGTCAT CACTAAACAC TTTGCCATTTC	7500
ACGGAAAGAG TTACCGCAGA AAGCTTATCA AGTACATTCT CAATCCTGAG AAAACCAATA	7560
ATCTTGCCCTT GGTGTCGGAC TATGGCATGA AGAATTTTCT GGACTTTTCT AGCTATGAGG	7620
AAATGGTGCA GATGTATCAT GAAAAATTCA TCAGCAACGA TACGCTTTAC GATTTTCGCC	7680
ACGACAGGAT GGAAGAAAAT CAACGAAAAA TACACGCTCA CCACATCATT CAGTCTTTCT	7740
CGCCAGAGGA TCATATCACT CCTGAACAAA TCAATCGGAT AGGTTATGAG ACTGTGAAGG	7800
AATTAACTGG TGGCAAATTT CGTTTTATCG TTGCGACCCA TGTGATAAA GACCACCTGC	7860
ACAATCACAT CATTATCAAT TCAGTAGATA GCAATTCTGA CAAAAGCTC AAGTGGGACT	7920
ACAAGGTGGA GCGAAATCTT CGCATGATTT CTGACCGTTT TTCTAAAATC GCAGGTGCTA	7980
AAATCATTGA GAACCGCTAT TCTCACCAGC GGTATGAAGT CTATCGTAAG ACTAATCACA	8040
AGTATGAACT CAAGCAGCGA CTCTATTTTT TGATGGAACA TTCTAGGGAC TTTGAGGATT	8100
TCAAAAAGAA TGCTCCGCTA CTACATGTGG AGATGGATTT CCGTCACAAG CATGCCACCT	8160
TTTTTATTAC GGACTCAACT ATGAAACAGG TGGTGCCTGG CAAGCAATC AATCGCAAGC	8220
AGCCTTACAC AGAAGAATTT TTTAAGAACT ACTTTGCCAA AAGAGAAATA GAAAGTCTCA	8280
TGGAATTTTT ATTGCTGAAA GTTGAGAATA TGGATGATTT ACTTCAGAAA GCAAACTTT	8340
TTGGACTAAC TATCAATCCT AAACAAAAGC ATGTTTCTTT TCAATTTGCA GGAGTGGAGG	8400
TAAAGGAGAC AGAGCTAGAC CAGAAAAATC TTTATGATGT AGAGTTTTC CAAGATTATT	8460
TTAAAAATAG AAAAGATTGG CAAGCTCCAG AAAGTGAGGA TTTCGTTCAA CTTTATCAAG	8520
AAGAAAAGTT ATCCAAAGAA AAAGAACTTC CAAGCGATGA GAAGTTCTGG GAGTCTATC	8580
AAGAGTTCAA GAGTAACAGA GATGCCGTTT ATGAATTTGA GGTGGAGTTG TCACTCAATC	8640
AAATTGAAAA AGTAGTGGAT GATGGAATTT ACGTCAAGGT CAAGTTTGGT ATTCGTCAGG	8700
AGGGACTTAT CTTTGTGCCG AACATGCAGC TTGATATGGA AGAGGATAAG GTGAAGTTT	8760
TCATCAGGGA AACCAGCTCC TACTATGTCT ACCACAAAGA CGCTGCCGAG AAAAAATGTT	8820
ATATGAAAGG TCGAACCTTA ATTAGACAGT TCAGCTATGA AAATCAAACC ATTCCATTAC	8880
GCAGAAAAGC GACAGTCGAT ATGATTAAAG AGAAGATTGC GGAAGTGGAT GCTTTGATTG	8940
AACTGGAAGT AGAAAATCAA TCTTATGTCA CGATTAAAGA TGAGTTAGTG CATGAACTAG	9000
CAGCGTCTGA ATTGAGAATC AATGAGTTGC AAGAACGAAT GTCAACCTTG AATCAAGTAG	9060
CAGAAATATCT ACTGGCTTCA GTTGAAAGTA AGCAAGAAAT GAAATTAAAT CTTTCAAAAC	9120
TGAATATAAC TGAGAATATC AGTGCTAATA TTGTTGAGAA AAAATTGAAG AGCCTGGGGA	9180

520

ATCAACTGGA ATTGAAAGG GGCAGGTATG AAAAGATGGT AGT

9223

(2) INFORMATION FOR SEQ ID NO: 60:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6827 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

TCTGCTGGCT ACCATCATCT GACTTGGGCA AGACCAAAGT CTTAGTTACA ACTGTATTCT	60
TCTCAGCATT TPCAATAACT GGCAATGCCG ACTGAAGCGT ATCTTTTCT GTTTTGTAG	120
CTGGTCCAGT TTCTTTTTC TGTCCGCAAC CAACCAGGAC AAAAAGGAAA GCTAGACTAA	180
CAAGAACTAT TTTTTCATT TCTTCTTCT TTCTTTTGA AATTAAAATA GAATAAGACT	240
GGGAAGTGCT CCCAGCCTTG ATGTTTATAG AGCTGCACGC AAACGTGCTT CTGCATTTTC	300
TACATTACGG ACAGAGCGTG GTAGGAAGGC ACGAATATCG TCTTCCTTGT AGCCAACTTG	360
CAGGCGTTTT TCATCTACAA GGATTGGGCT CTTTAAATTT CTCGGTGTTC CCATAATCAG	420
ATTGAGAACT TCATTGACAC TCAAATCTTC AATATCCACT CCAAGGGCTT TGGCATAGCG	480
ATTTTGTAGC GAAACGATGC TGGCTATTCC GTTATCTGTT TTGGTTAGAA TATCCAGTAA	540
TTCTTCTCTC GTAATTCCTT CTTTACCAAG GTTTTGTCT TTATAACTTA ACTGGTGGGC	600
ATTGAGCCAG GTTTTGTCTT TTTTACAGCT AGTACAACCT GAGACTGTAT AAATTTTAAT	660
CATGTACCTA CCCCTTTCGC TACATGTTAC TATCAGTTA GTCTATTATA CCATAAAAAA	720
CATCCGACTT GCGACCTATT TTTAATTTTT TTTGACTTTT TTCGTCATTT TCGTACTTTT	780
TTCTTGACAA ACAACTAAAT GACTATCAAC TCTTTTGGAG CTAGGGTCAA TAATTCACAA	840
CCTGTCTCTG TAATCAGGAT ATCATCCTCG ATACGAACGC CATATTTGCC TTCGATATAG	900
ATACCTGGTT CATCGGTCAA GGCCATACCT GTCTTAATAG TTTCTGTAGA AGTCTGACTA	960
AAGTAGGGTT CCTCATGGAT ATCCAGACCA ATACCGTGGC CAATGCCGTG AGTAAAGTAG	1020
TCACCATAAC CTGCCTCAAT GATAATATCA CGAGGGATT TGTCAAAGTC ACGGAAACCT	1080
AAGCCTGCCT TAGCTTGGTC AATCAAGGCT TGGTTAGCTT TTAGAACCGT ATTGTAAATC	1140
TCTGCCTGCT CATCGCTAAC ATGCCCTAGA TAGATAGTCC GGGTCATATC ACTGACATAG	1200
TGGTCATAGA GACAGCCGAA GTCCATGGTG ATGGCTTCTC CCAACTCCAC TGGTTTGTGC	1260
ATTGGATGGG CATGGGGTTT AGAAGAATTG ATACCGCTAG CTAGGATCGT ATCAAAAGAT	1320
AAGCCAGATG CTCCCACTC ACGCATGCGG AAATCAAGGA AGTTGGCAAT CTCAATTTCA	1380

521

GTGTTTCCTG	GTTTGATAAA	GTCAAGCGCA	TCGCGGAAAG	CTTGGTCTGA	GATAGAACAA	1440
GCCTTGCAG	TCGCTGCAAT	CTCTGCCTCA	TCCTTAATCA	TACGAAGACC	TTCCACAAAC	1500
TGAGTTTGTG	GAAGCAAGTT	CAAACCTGCA	AAAGCTGCCT	GCATACGGTG	GTAATAAGAC	1560
ACTGAAATCT	CATCTTCAAA	ACCGATACGA	GTCAAGCCCA	TGTCCTTAAC	AATTCCTGCA	1620
ATGACAGCCA	ATTCATCAG	ATCAGCCACA	ATCTCAAAAC	CACTGGTTTC	TTGCTTAGCT	1680
GCGATGATAT	AGCGAGAGTC	TGTCACCTAAG	ACCTGACGGT	CACGACTGAT	AAAGACTGTT	1740
CCGTTTGAGC	CCCCAAAACC	AGTCAAATAA	TAGACGTTTT	TAAGATTGTT	GATGATGATA	1800
CCATCTAGTT	CTTTTCTCTG	CATTTTAGCT	AGAAATGCTT	GTACGCGTTT	ATTCATGATG	1860
TAACTTTCTC	TTCAAATAGT	GTCTGTGATA	GCTGGCTTCG	TTGGCAGCTA	CTTCTTCTGG	1920
AGTTCCTGTT	ACGATGATGG	TTCCACCACC	GACACCGCCC	TCAGGTCCCA	AGTCAATGAT	1980
ATGGTCTGCC	GTCTTGATAA	CATCCAGATT	GTGCTCGATG	ACGAGGACTG	TATTGCCATC	2040
GTCTACAAAG	CGAGCTAAAA	CCTTGAGCAG	GCGAGCAATG	TCCTCTGTAT	GAAGCCCTGT	2100
CGTCGGCTCA	TCCAGAATGT	AGAAAGATTT	TCCTGTCGAT	CGTTTGTGGA	GTTGCTAGC	2160
TAACTTTATA	CGTTGGGCTT	CTCCCCCAGA	AAGGGTGGTA	GCTGGCTGTC	CCAAGGTCAC	2220
ATAGCCTAGC	CCTACATCCT	TGATGGTCTG	GAGTTTGCCT	TGAATTTTCG	GAATGTGTTG	2280
GAAAAATCTT	ACCGCATCGT	TGACCGTCAT	ATCCAAGACC	TGCGAAATAT	TCTTTTCCTT	2340
GTAGTGAAGT	TCTAGGGTTT	CACTGTTATA	GCGGGTCCG	TGGCAAACCT	CACAAGCCAC	2400
ATAAACATCT	GGCAAGAAGT	GCATCTCAAT	CTTGATAATC	CCGTCACCTG	AGCAAGCTTC	2460
ACAGCGACCT	CCCTTGACGT	TGAAACTGAA	GCGCCCCCTC	TTGTAGCCTC	GAATCTTGGC	2520
TTCAATTTGTC	TGAGCAAAAA	GGTCACGTAT	ATCGTCAAAA	ACTCCTGTAT	AGGTAGCTGG	2580
GTTAGACCTC	GGCGTCCGTC	CGATAGGGCT	CTGGTCAATA	TCAATCAAAC	GGTCGACATG	2640
CTCAATCCCT	GTAATAGTCT	TAAACTTACC	AGGTTTGTCT	GAATTACGGT	TGAGCTTCTG	2700
GGCAATGGCT	TTTTTGAGAA	TGCTGTTGAT	TAGAGTCGAT	TTCCCTGAAC	CCGACACACC	2760
TGTCACCTGC	ATAAATTTTC	CTAGTGGAAG	GCGAGCCGTG	ACATTTTGCA	AGTTGTTCTC	2820
ACGCGCTCCT	ATCACTTCAA	TAAACGACC	ATTTCCGACA	CGGCGCTCTT	CTGGTACTGG	2880
GATGACACGT	TTGCTTGACA	AGTACTGACC	TGTGATAGAC	TTGCTGTTGC	GAGCCACTTG	2940
CTTAGGTGTA	CCTGCTGCAA	CAATCTCACC	ACCAAAAACA	CCGGCACCAG	GACCAACGTC	3000
AATCAGATAA	TCAGCCTCAC	GCATGGTATC	TTCGTCGTGT	TCCACCACGA	TAAGAGTATT	3060
GCCCAAGTCA	CGCATCTTTT	TCAGACTGGC	AATCAGGCGA	TCATTGTCCC	TCTGGTGAAG	3120

522

ACCGATTGAC GGCTCGTCTA GGATATAGAG GACACCTGAT AGGTTGGAAC CAATCTGGGT	3180
TGCCAAACGA ATGCGCTGAC TTCCCCCACC TGAAAGGGTT CCTGCTGAAC GTGACAGGGT	3240
TAGATAGTTA AGACCCACAT TATTAAGGAA GGTCAAACGA TCCTTGATTT CCTTGAGAA	3300
GGGACGAGCA ATGATGGCTT CATTTTCAGA CAAAGTTAAC TGGCTCACCA AGTCCAAGTG	3360
GTCAGCGATA GACAGGTCTG AGATTTCCTC AATATGTGGC CCTTGCTGGC CGCCACACG	3420
GACAGACAAG GCCTGGTCAT TGAGACGATA GCCTTGACAG GTTCCGCAGG TCAGCTCAT	3480
CATGTAGAGA CGCATCTGAG TGCAGTGTA ATCGCTATTG GTTTCATGGT AACGACGTTT	3540
GATATTATTG ATAACCTCCCT CAAACGGAAT GTCGATATCG CGCACGCCAC CAAATTCATT	3600
CTCATAGTGG AAATGGAATT CCTTACCATC TGACCCATAG AGAATCAAGT TCTTATCTTC	3660
TTCTGACAGG TCCTCAAAAG GCTTATCCAT AGCCACTCCA AAGACTTTCA TGGCCTGCTC	3720
TAACATGTTT GGATAGTAGT TGGATGAGAT AGGATTCCAA GGTGCTAGCG CTCCCTCAGC	3780
TAAGGTTTTC CTAGCATCTG GCACTACCAA ATCAGTATCC ACCTCCAGCT TGATGCCCAA	3840
GCCGTCACAC TCACTACAAG AGCCAAAAGG AGCATTGAAA GAAAAGAGAC GAGGCTCTAA	3900
CTCTGGGACA GTAAAACCA AACTGGACA GGCATAATGC TCAGAGAACA ACAACTCCGA	3960
GTCGTCCATG GTGTCGATAA TGACATAACC TTCTGCAATA CGAAGGCAG CCTCAATGGA	4020
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ATTGTGTTGC TTGCTCTTAG ACAACTCTGG CACTTCGGTC ACATCATAGA CTTCCCATC	4140
CACACGGACA CGAACATACC CGTCTTTCTG AACCTTCTCG ATAACACTCT TATGTTGGCC	4200
TTTTTCTTG CGGATGACAG GAGCCAAGAT CTGCAAGCGC TGGCGTTCAG GTAACCTCAA	4260
AACCTTATCA ACGATTGCT CCACAGAAGA AGCATTGATA GCTCCATGTC CGTTGATACA	4320
GTAAGGCGTC CCCACACGTG CGTAGAGGAG ACGCAGATAG TCATTGATT CAGTCGTCGT	4380
TCCCACCGTC GAGCGAGGAT TTTTACTAGT CGTTTCTGG TCGATGGAAA TAGCTGGGCT	4440
GAGACCATCA ATGGCATCTA CATCTGGTTT TTCCATATTT CCCAAGAAGT GACGAGCGTA	4500
GGCGGACAAA CTCTCTACAT AGCGACGTTG TCCCTCCGCA TAGAGAGTAT CAAAAGCCAG	4560
ACTGGACTTC CCTGAACCTG ACAAGCCAGT CACGACAACC AACTTGTCCTC GCGGAATCTC	4620
CACATCAATA TTTTTTAAAT TATGGGCACG CGCCCATGA ATGACAATTT TATCTTGCAT	4680
CTTGTCTCTT TCTAGTCCAT TATTGCTTAC CATTATACCA AAAAAAGTGA GATTCTATTA	4740
CCCAAAGGC CGATTTTGTA GTATAATAGT ACAGTGTGAA AAAATCTGAA AAATGAGAAA	4800
GGATAAGGGA TATGAAACAA GTTTTCTCT CTACAACAAC TGAATTTAAA GAGATCGATA	4860
CGCTTGAACC GGTACTTGG ATCAATCTCG TCAATCCGAC TCAAAATGAA TCACTCGAAA	4920

523

TCGCCAACAC CTTGATATT GATATTGCTG ACCTTCGAGC ACCGCTCGAT GCGGAAGAAA	4980
TGTCTCGTAT TACCATTGAA GACGAGTATA CCCTGATTAT CGTAGACGTG CCGGTCACGG	5040
AGGAAAGAAA TAACCGCACC TACTACGTAA CCATCCCGCT TGGTATTATC ATCACTGAGG	5100
AAACCATTAT CACTACGTGT TTGGAACCAC TACCTGTCCT TGATGTCCTT ATCAACCGTC	5160
GATTGCGTAA TTTCTATACC TTCATGCGTT CACGTTTTAT CTTTCAAATT CTTTATCGCA	5220
ATGCAGAGCT TTACCTAACA GCCCTTCGTT CAATCGACCG CAAGAGTGAA CAAATCGAAA	5280
GTCAACTGCA TCAATCAACT CGTAATGAAG AATTGATTGA GCTCATGGAA TTGGAAGAAA	5340
CTATCGTCTA TTTCAAGGCC TCCCTCAAAA CAAATGAGCG CGTGATTAG AAATTGACCA	5400
GTTCACCAG CAATATCAAG AAATACCTTG AGGACGAAGA CCTGCTTGAA GACACCCTGA	5460
TTGAAACCCA ACAGGCCATC GAGATGGCAG ATATTTATGG AAACGTCCTG CATTCATGA	5520
CAGAGACCTT TGCCTCTATC ATTTCTAACA ACCAGAACA CATCATGAAA ACCTTGGCCC	5580
TTGTGACCAT CGTCATGTCC ATCCCAACCA TGGTCTTTTC TGCCTACGGG ATGAACTTTA	5640
AGGATAATGA AATCCCCCTA AACGGAGAGC CAAATGCCTT CTGGTTAATC GTCTTTATCG	5700
CCTTTGCTAT GAGTGTCTCG CTCACCTCTT ATCTCATCCA TAAAAATGG TTCTAAGAGG	5760
AGTTCCTATG TCTCAAATTG ATCTACAAAA ATTAATAAG AAAAACAAG AGTTTGTTCA	5820
CATTGCTACC CAACAATTCA TCAAAGATGG GAAAACAGAC GCTGAAATCC AGACTATTTT	5880
TGAGGAAGTC ATTCCCCAAA TCCTTGAGGA GCAATCTAAA GGTACAACCTG CCCGTTCCTT	5940
ATACGGCGCA CCAACTCATT GGGCTCATAG CTTCACTGTC AAAGAGCAGT ACGAAAAAGA	6000
GCATCCAAAA GAAATGATG ACCCAAACT GATGATTATG GACTCAGCTC TTTTCATCAC	6060
TAGCCTCTTT GCCCTTGTC GCGCCCTCAC AACCTTCTTT GCGGCAGACC AAGCTTTCGG	6120
CTATGGATTG ATTACTCTTC TATTAGTTGG ACTGGTTGGT GGATTTGCCT TCTACTTGAT	6180
GTACTACTTT GTTTACCAAT ACTATGGACC AGATATGGAT CGCAGTCAAC GTCCACCTTT	6240
CTGGAAATCT GTACTAGTTA TCCTAGCTTC TATGTTCCCT TGGTTGCTTG TCTTCTTTGC	6300
AACAAGCTTC CTACCAGTA GCCTTAACCC AGTACTGGAT CCATTGCCAC TAGCTATTAT	6360
TGGAGCAGCC CTCCTAGCCC TTCGCTTCTA TCTCAAGAAA CGCTTGAATA TCCGTAGTGC	6420
AACTGCAGGA CCAACACGCT ATCAAGAATA AGAAAACGAT AAAAGCAACT GCAGGTGCGG	6480
TTGCTTTTTC ACTTACTTTT TTGAGTTATA TTCAATGAAA ATCAAAGAGC AAACCTAGGAA	6540
GCTAGCTGCA GGTGCTCAA AGCACAGCTT TGAGGTGCA GATAAACTG ACGTGGTTTG	6600
AAGAGATTTT CGAAGATAT TAAAAGTATT CTTCTGAAAT CCCACATAGC TTCTCTTAT	6660

524

ATTTTGTGAT AAAATAGGCT CAATCTATTT CTAGGAGGAT GAGATATGGT TTCTACTATT 6720
 GGTATTGTTA GTTATCTAG TGGCATTATC GGAGAGGATT TTGTCAAACA CGAAGTGGAC 6780
 TTGGGTATCC AACGTCTCAA GGATCTGGGA CTCAATCCCA TCTTTTTT 6827

(2) INFORMATION FOR SEQ ID NO: 61:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11864 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

CTGGCTAGTT GCATAGAGCA AAGTTGCTTC TTCATCAACA AAACCGTTCA TTTCAAAATA 60
 GGAAAGCAGC TCATCAGGAC TCTCCAAACG AATCCCTTTG TAATCCAGCT CAACTGCCAC 120
 CTCTTTCAAG GCTGCAAGAA GAAGTGTTC CAGGCCCTGT CTCTGATGGT CAAACTCGAT 180
 GACTAAAGAA TGTACTTTTA GACATTGCGG ATTGTCTGAC TGGGGACTTG ATAAAAATA 240
 GCCTAAAAGT TGATTTTCAT CCCTAGCTAG AAGAAAGGTA TCCGCACACT TACGGATACT 300
 TTCTTCTAAA ATATGGGAAA GTTGCTGCTT TTCAGCTGGA AAAGACGAGG TCTGAAGTGC 360
 CCCTATCTCA GGCAAATCAG ACTTGCTTGC CTGAATGATC TTAATTGGA TTTCCATGGG 420
 AACATCCTAT TGAACATTGC TTGTCAAGTT AGACAAGAGA CGCTCAAATG AGTATTCATA 480
 GGTTTGGATG TCTCTGCTC CCATAAGAC GTAAACAGCA TTGTCATGGT CTAGGAGTGG 540
 AGAAACATTT TCAACAGTAA TCACTTGGTG TTTTTTGTG ATTTTGTGG CTAGGTCTTC 600
 TACCTTAACG TCACCATGAT CTACTTCACG AGCCGAGCCA TAAATTTGCG CTAGATAAAC 660
 AGCATCTGCT TGGTTTAAAG CATGGGCAA GTCGTCCAAC AAGGCAATGG TTCTTGTA 720
 GGTATGCGGT TGAAAGACTG CTACAATTC CTTGCTTGGG TATTTCTGAC GAGCCGCATC 780
 CAAGGTCGCA ATAATTTCTG TTGGATGGTG GGCAAAGTCA TCGATAATCA CTGTATCATT 840
 GACAATTTTC TCAGTGAAC GACGTTTAA ACCGGCAAAT GTTTTCAAGT GCTCACGCAC 900
 CAAGTTCAAA TCAAATCCTG CTGTGTAAAG AAGACCAATA ACGGCTGTG CATTTCATGAT 960
 ATTGTGACGA CCAAAGGTTG GAATGTGGAA TTGCCCAAG TTTTGTCCAC GGAAATGAAC 1020
 GGTGAAGGTT GAACAGTTA TTGAACGAAG AAGATCACTA GCTACAAAGT CATTCCTTC 1080
 AGCTTCAAAA CCATAAAT AAATTGGTGC ATCAGACGTA ATCTTACGCA ATTCAGCATC 1140
 TTCACCATAG AAAAAAGAC CCTTGGTGAT TTGTTTGGCA TAGTCGTTAA AGGCATTAAA 1200
 AACATCCTCG AGACTTGTA AATAATCTGG ATGGTCAAAG TCAATGTTGG TGATAATAGA 1260

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GTATTCCTGGG TGGTAAGGCA TGAAGTGACG CTCATATTCG TCAGATTCAA AGACAAAATA	1320
TTTGCCATTG GCCGAACCAC GACCTGTCCC ATCTCCAATC AAGAAGCTGG TATCTGTAAT	1380
GTGAGACAAG ACATGAGACA ACATACCTGT CGTTGAAGTT TTTCCATGTG CTCCTGCTAC	1440
TCCCATGCTA ACAAAGTCAC GCATAAAGCT ACCTAGAAAC TCATGGTAAC GTTTGTAGCT	1500
GATACCATTT TGGTCCGCAT AGGCAATTTT GACGTTGTTA TCTGGACGAA AGGCATTTCC	1560
AGCGATAATT TCCATATCAC CGTCTAGATT TTTTTCATCA AAAGGAAGAA TGGTAATTCC	1620
TGCCTGCTCA AGACCGCGTT GGGTAAAGTA GTACTTTTCA ACATCTGATC CCTGAACCTT	1680
GTGCCCCATC TGGTGCAACA TCAAGGCCAA GGCACATC CCTGATCCCT TAATTCGAT	1740
AAAATGATAT GTCTTTGACA TGTMTTCTCC CCTATTCTGT CATTTCTGGTC AGATTCAACT	1800
CTTGGGCAAC CCGACGTTCT TGTCTCTTTT GTTTACTTTT TTTATTGTAG ATTTGGCTCT	1860
TCTTTAGAAA ATCATAATTG TTTTCTTTG GAGCAGGTGC TGACACTTCT TCATTCTTGG	1920
TAGGGATAGA ATGAACCTCT TCCGCCAAGA TATAATGAGA CTGGGTCAAT TTTTGGCTAT	1980
ATTTGACAAA TTCACCAGGA TTTTCTTTT GGAAAGGAGC TGTCGGTTGA TTGCCCTGTC	2040
TAACTAGACT GGGCTGAGAA TGACGTCTCG CAAGGCTGAA ATCCTGAGTT AGGTAGTTAG	2100
CAGAGCGTTT CTTTTTCAAG TCCGCACGCG CTTCTTCACG CGCCACCTCC GCATAGCTCT	2160
TTCTTCTTTT TTTAACCCCT AAAGGAGCCT TTTTAGGTTT TTCGACTTGC TTTTCAATCG	2220
GTTTTACTGG TTTTCTTCA GCAATAGGAG CCCATTCTAA ATAATTTTAA TCTCGATACT	2280
CACCCCTGAT ATTACTGATC AGATCAGACT CATCATAGAG ATTCATGACT GGCATTTTCA	2340
TCAACATGAC CTGCTCATCT GACACCAATG GAAATCGTTC TTGTTTCATT TTCTATTTC	2400
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CAAAATTTCT CTAATTTCTG CTAGGGTCAG ACTACCACGT GACTCTGTGC CGTCCAATAC	2520
TTGTGACACC AGATGTTTCT TTTGTTCTTG GAGTTCCTGA ATTTTCTCTT CAATGGTTCC	2580
CTTGGTCACC AAGCGATAGA CCTCAACCGT TTCTTCCTGA CCCATCCGAT GGGCACGGCC	2640
AATGGCTTGC GCTTCCACCG CAGGATTCCA CCAAAGGTCA ACCAAGATCA CTGTATCTGC	2700
ACCTGTCAGG TTCAGACCGA CCCACCAGC CTTGAGGGAA ATCAGAAAGG CATCTCTTTC	2760
TCCTTGTTA AAGGCCCTGG TCATGTCTTG TCTTCTCTG GCTGGGGTTG AACCCGTAAT	2820
TTTAAAGGAA GTCAGGCCCA AGTCTGGCAG TTCTTGTTCA ATTTTTCCTT ACATTCCCTT	2880
GAACTGAGAG AAAATCAAGA CACGGTGTCC GCCGTCTGCC ACCTGTACCA GTAGGTCTCG	2940
GAGACTATCT AGTTTGCCGC TGGCTCCCTG ATAATCTTCC ATAAACAGGG CAGGAGTGTC	3000

526

ACATATTTGA CGCAAGCGCA TCAAACCAGA TAAATTTCC ACACGACTTC GCTGAAATTC	3060
CTGTTCTGAC ACTTGAGCCA GATGGTCTCG CATCTGTTGT AACTGGGCAA GGTAATAGC	3120
CTTTTGCTGG TCTTCCAGTT CATTTTATA AACCACTCA ATCAAGTCTG GCAATTCAGT	3180
CAGAACTTCT TCTTCTTGC GTCGCATCAC GAAAGGCTTG ATAACTGAG CCACTCGCTC	3240
TGCTGGCAAT TTCATAAAT CTTTCTTGCT TGGCAAAAGT CCAGGCATGA CGATTGGAA	3300
AATAGACCAC AACTCACCCA GATGGTTTTC AATCGGAGTT CCTGACAAGG CAAAGACCGA	3360
CGGCACCACA AATTGTCTCA AGGTCTGGGC AATCTTGGTC TGGGCATTTT TCATGACCTG	3420
AGCCTCATCT AAGAAAAGGA AGTCAAAGGC CATCCCTTGA TAAAACTCAC TGTCTGACG	3480
GAAGGTGGCA TAGCTAGTCA CATAGATTG ATGGCTCTCG GCAAGAATCT CCTCAGGACT	3540
TGCTTTCAA CCATGAACAA CAGTCACATC CAACTGTGGA GCAAATTTCT GAAACTCATC	3600
TGCCCAGTTG TAAATCAAAC CCGACGGAGC GAGAATCAAA ACCCGACTTT CTTTGTGTC	3660
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AATCCCACCA AAACCATAAT GATGGAGCAT CTGCAACCAG CCAATTCCTT TTCTCTGATA	3780
ATCTCGCAAG TCAGCCTTGA CCTGAGTTGC TTGCAAAGGA AAGTCTCTG GATGCGTCAA	3840
ATCCTGGGCC AGATTCTGGA ATTCTTGTGA AAAAGAAACA CGGTCTCGCC CTTCAAAGAG	3900
ATGAGCTAAA CTGTAGGCCA AGGATTTCAG AGCCTGCAAG GTCCCATCTT TTAATTCAAA	3960
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TTGATTAGAC GAATCAATAT AAAATCCTG ATTGGCAACC AAGGCCTGCA TGGCTTGGTC	4080
GATTTCTCTC TGGACAATAT TTTGAAAATC AAAGTGGATT TCCAAGAGAC CTCCTTGGA	4140
GGCAATCTGC ACCTGAGGAC TCGCTAGGCT ATAAAGCTCT TCTAGTTTAT CTGATAGGTC	4200
AACATGCCCG AGTTTTCCTA AGACTGGAAT GATATCATGA AAAAAATGAT AGACAGACTC	4260
CGCTTTTAAG GCCTGACGCC AAGATTGAAA ATCGGCCTCA AAGCCCGCAG CCAAACAGAC	4320
TTGGAAAAT CTTTCTTCTA AGTCTGCGTC ACTTGAAAAG GGTAATTCCT CTAGCTCTTG	4380
TCGGCTAGAT ACCTGTCTAT TTCCATAATC AAAGTGAATT TCTAAACGAA TCCGATTATC	4440
TTCTTCCCTG TCAAAGTAAA AAGAGGGCGC AAAAGTTTGT ATTTGTAGAC GTTCTGGAGC	4500
TGAAACGGTG CCCATCTGGA TAAAAAGAGT CAGACAGGAG GCCAATTTGT CTCGATCACT	4560
GCTATCAAAT TGCAGGTATT TCTTCTCTTG TTGACCCACA GGTAACGCTT TAATTCCTT	4620
GAGAAGACGC ATCTGTGGT CTGTAAAAA ATAAACCTGA CCTTTATGGA AAAGTACTGC	4680
TCCCTGATAA AAGACATTGA CCCTAGGACT CTCAGTATT TCCATTTCAA AATAATCCGA	4740
GTATTCTGTT ACTGTAAAG CAAATAGATT GGCATCAGCA TGCATATCCT GAAAAAGCAG	4800

527

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CACACCCTGC TCAAAAAAGG TCAGAGGGAA AAAGAGGTGC CGACCTTGGT TTTGGAAAAA	4920
GAGGTCTGGA ACCAGCCCTT CCTCCGTTAG TCCGTGCAAG AAAGTCAAAA GTTCTTGGCT	4980
GGCATCATCA AAGGCTTCCC AAGAAAGAGA CTCCTCATAA ATCTTGCCAA TCATATACGA	5040
CTTTCTCTGC TCGACAATCC TTAAAAAAG TGAATATCC CGAATGACAT AGTATTTTGT	5100
GCTATTGATT TGGCCGATTC TCAGAGTCCA CAAGATATGA TTGGTTCCTG CTTCCACCTG	5160
ACCCACAGCT GATAACTCAT AGGCGCATTC TGATTTTGA GATAAAATTC GATCCAAAAA	5220
CTTGCCACCC AAGGTCACTT TGGTTTCAAC AGCCTCTTTT TCTTCATGAC CTTCTTCCAG	5280
ACTCCACAAG ATTTCTGAC CACGCTCATC ATTTTTCAGA AAATGCTCTA GCGCTGCCAA	5340
ATGCACACAG TAGCCCTCTT TTTGAAAAA ATCACAGGCA CAAAAACCA AATCATCCTC	5400
TAAACTATAG CGCAGTTCTT CTTCTGCAAC GCGAGCGTAG AGCCGATTGT TCTTTTCTTT	5460
GATGATATCA ACCTTACCAG TTTCATAAAG GGCAACACCT TCGATACGAA TTTTCCCGG	5520
AATCAATTTA GCCATATTTT CACCTTTACC TTATCTTTT ATTATACCAT ATTTTCGCCT	5580
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ACATAGAGTT TAACCTCCTC TTCCACCAA TCCTTTTCAA GTTGGTCAAA GTCATCTCA	6360
AACAGACTAT CCTTTTCCAC TAAGGAATTA GTAATCAATC TACGATTATT CAACTTGACA	6420
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AAGGTTTGAA TAGCTGTTGA GATGGCTGGT ACCACACCTT CGATAAAGAC AAGAGCCTCT	6540

528

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TCACTGGCAT AGGTATAACC ATAAACCAGT TGGTCTGCGT AAGTTTGAC GGCTTGGCGG	6660
ATTTCAGGCA AGACCACAAA GTCCATATCC GCTATCCAAG CTGGTAGAAC TTCACTATCC	6720
GTTTCTGTTT CTTTCCATTT ATAGGTATGG TGCCCTAAAC GGTGGGCAG GCTTGTAATA	6780
TCATATTTTC CCATCTTTGT CTTATCCTTC TATGGCTTGG CGCAAATCTG CAATCAAATC	6840
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GCGTACCTCT GCTGGAATAT CAGCATGAGT TTGAGTCGTT GGATAAGTAA TAAGACTTTC	6960
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GCGTGTTC ACGGCTACTT TAAAGGAAAT CATGCCTCCA CGACCAGTGT AGAGAACTTC	7080
CTTAACGTCT GGAGAATCCT TCAAAAAGGC AACCACTTCT TGGGCGTTAG CTGTTGAGCG	7140
CTCCATACGA AGAGACAAGG TCTTGAGACC ACGAAGCAAC TGGTAGCTGT CAAATGGAGA	7200
CAAGACTGCC CCTGTGTAT TAAGATTGTA AAAAAGCTTC TCGTATAGTT CTAACATATT	7260
GGTCACAACC ACTCCAGCCA AGACATCATT GTGGCCTGCT AGATACTTGG TTGCTGAATG	7320
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CACTTGGTTA AACCAAGCAA AAGAACCAAC GTAAAGATCA CGCACTGCCA AGACCTTACT	7620
TCCTACTGGA AAGACGCTAA AGGCCAGTAC AATAGCTGAC ATCCCTGAGC TAGTCGCTAG	7680
GGCATAGTCT GCTGACTCAA TAGCCGCCAA GACTTCCTCA GCCTTACTAC GAGTTGGATT	7740
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TGAAAAATGA AGTGGTGTC CCAAAGCACC TGTTCCTCA TCAGACTTGA TCCCTGCTTG	7860
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TGGCTTCATC AAATATAAGA ATTTCAAGCAT CTTTAAAGTA GGCTCTAGCT ATTTGAAGTC	8340

529

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TTTCATGGAG CGAATCTCAT CACCTAGTGA TACTAAGTCT AGCACTTTCA TCAATTCATC	8460
ATCAGTTACT AAGCGATTCA AACCGAGACA AAGATTGTCA CGAATACTGC CAGATAAGAC	8520
TGCATTATTT TGTGAAACCC AAGCGATTTT ACTTCTCCAT TCTTTTAAGT TAAAATCATA	8580
TATACTTGAT TGCTCCATTA GAATATCTCC TGAAAGCGGT TTATAAAACC GCTCTAACAA	8640
ACGCACAATC GTTGATTTTC CTGATCCAGA TGGTCCAACA AAAGCAATTT TTTGCCCTT	8700
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AGCTATAGTC GCAAAGATAA ATAAGAGAGC AAACGGGGTC TCAAAAGAAG TAACCCTATC	9060
TGATTTCACT GAATTGTTTT GTACCCTTTC AATACAATTA TCCAAAACAT CCTGTACACT	9120
TTTCTCTGCT TGGTTAGTCT TAATTAATTC ATGTTCTTGA ATCTTTTCAG TCAATTGCCC	9180
TGTTAAATTT CCTCTGTAA ACGACGACTA TACTTTTCAC TGATATTGGA AAGGGGCAAG	9240
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TTCTTGATTT TTGCTATCTT TTTTTCACCC GATTGACTAA ACAGATAGTA ACCAATAGAA	9540
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CTAGACAGAA CAAGTAAGAA ACTCCCCATA ATCACCTTAG TATCTACTCT TAATAATTTT	9720
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TGATATTATG CGTTTTTAAG CACAAAGACT TCTTACACAA ACTTATCTAC AATTAGATTT	9900
TATTTGACAT GTTTTGCCAA TTCTTCTTGG GCTTTTTTAT TGGATTCTTC TTTTCTTTTC	9960
AACCATTTT CTCTGGCTTT TGCATATTCG TCTGTTGTGA CAATCTTATC TTGTAATTTG	10020
AGGTATTTAT ATGATTCAAC CCCTTTTGTA CCGGTAAAC CATAGGCAGC AGCAAATGGT	10080

530

ACGGTTCTTC TCAATGATGG TGTTCCTCCCA CGCGAAACAC TTGGAAGAAC TAAAGAACTA	10140
TCAATCAACC AAGCTTGAAT ATCAGCATAT TTCTCATAAC GTTTGGCCGG ATCTTGCTCT	10200
TTATTAGCTT CTTC AACAT TTGAGTATAG ACATCCAGTC CAACTGCCTT AGCCTTGTC A	10260
TTGGCCTCAC CAGGCTCTAG TCCAAGATTT TGCAGAAATC CTCCACTATT AGTATTAAAA	10320
ATATCGAGAT AGGTTGACGG GTCTTGATAA TCAGGTCCCC AACCGCCATG ATATAAATCA	10380
TAATCTTTCT GAGCAGCTGT TTGAGCAAAG TAGCCTGAAC TGTCAAATC ATCTGATGTT	10440
AATTGCTGAA TGTCAATCAC TACATTATCA GAACCTAAAA CAGATTCAAT TGATTGTTTG	10500
ATAGAATAA CTCCTTGAT GCCTACTTTA TCTGTTACTT CCACAGTCTT ATCCAAGTGG	10560
ATTGGGAATT GAACACCCTT TGCTTCGAGT TCTTTCTTAG CTCCGCAAA CTAGCCTTG	10620
GCTTTCTCAG GATTGTAGTA AGGCTCTGA CCATCCGCA AGTTGATACC TTGCCATTCC	10680
TTACCATAGT TGACCATCTT AGAGGCTACA ACTTCACCAA AGTCTTTTCC CTTGATACTG	10740
ACAAAGTTTG GAGGAACCAC TAGGTTACGC AAAATCTTTG TTGCACCTTC TTTCCCTTCA	10800
GACTGAGCCC CATAAGATGT TCTGTCAAAA GCAAAATTGA TAGCCTGACG GAAGTTTTTA	10860
TTGAGAACTG CTTCCTGAGT CGATTTCTTT TCAATGTCAC TTGTTT TAGA AGTATAATTG	10920
TAAGACTTCC TATCTAGGTT AAAATTAAAG AAATATGAAG TTGAATTTTG CATACTATAG	10980
ATGATATTGT TTTTGTATTT TTCTTTAATC CCTTCATAGC TGGAGCTGTT AGGAAAAAGA	11040
CGAGCCGTAG TATAAGCACC AGCTGTAAAA TTACGTTCCA GTGATTCTTG GTCGCTACCA	11100
TCATAGTAGG TCAATTTTAC ATCGTCTACA AAGACATTCT TAGCATCCCA GTAATTAGGG	11160
TTTTTCTTAT ATTCAATAGC AGATTTTGAG ACAAGTGCTT TCATCAAGAA AGGTCCATTG	11220
TACAAAATAC TAGATGGATC CGCCTTCCCA AAATCATCCC CTTTGTGATT CAGGAAATCT	11280
GCATTAAACAG GAAAAAGTAT CGTTGCAAGT GTTTTGAAT TCCAGTAAAG TTCTGGTTTA	11340
ACCAAAGTAT ATTGAACCGT TTGGTCATCA AGTGCCTTGA CACCGACAGT TGAAAAGTCG	11400
CTTGTTTTAC CAGTGATATA GTCATCCAAA CCAGCAACAG AGTCCTGCAC TAGATACAAG	11460
GCTTCTGATT TTTTATCAGC TGCATATTGC AAACCTGTCA CAAAATCCTG GGCAGTTACA	11520
GGCGCATATT CTCTCCCTC AGAAGTAAAC CACTTGGCAT CCTTACGAAG TTTGTAGGTA	11580
TAGGTCAAAC CGTCTGAGA AACAGTCCAA TCCTCTGCTA ATGATGGAAT AATATTCCCA	11640
TATTGGTCAT TTTCTAATAA CCCGTCTACC AAATTGCAA CAATATCGGA TGTGCTGCG	11700
CGGTTTTCTG CTAGATAGTT CAAGCTAGAT GGATCACTTG AATAAACATA GTTGTAGGTT	11760
TTTGACGCCG TGCTAGAATT TCCACACGCG CTCAATAAAA CTCCTGTACC CAGGACAAGA	11820
CCTGCCAAGG TTAGATATTT GCTCTTAGAC TTTTTCATTT CCGG	11864

531

(2) INFORMATION FOR SEQ ID NO: 62:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2412 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

TAAGTGCCT AAACATAATA TAAGGAGAGA AAATGTCTGC AATAGAACGT ATTACAAAAG	60
CTGCTCACTT AATTGATATG AACGATATTA TCCGTGAAGG GAATCCTACT CTACGCGCGA	120
TTGCTGAGGA AGTCACTTTC CCCCTATCTG ACCAGGAAAT CATCCTAGGC GAAAAGATGA	180
TGCAATTCCT TAAACATTCC CAAGATCCTG TCATGGCTGA AAAAATGGGA CTCCGCGGTG	240
GTGTTGGACT GGTGCTCCC CAGTTAGATA TCTCAAAACG CATTATCGCT GTTTGGTAC	300
CTAATATTGT TGAAGAAGGC GAAACTCCAC AGGAAGCCTA CGATTTGGAA GCCATTATGT	360
ACAATCCAAA AATCGTCTCT CACTCTGTTC AAGATGCTGC TCTTGGCGAA GGAGAAGGTT	420
GCCTGTCTGT TGACCGTAAC GTGCCTGGCT ATGTTGTTCG CCATGCCCGC GTTACTGTTG	480
ACTACTTTGA CAAAGATGGA GAAAAACACC GTATCAAAC TAAAGGCTAC AACTCCATTG	540
TTGTTCAACA TGAAATGAC CACATTAACG GTATCATGTT TTACGATCGC ATCAATGAAA	600
AAGACCCATT TGCACTTAAA GATGGTTTAC TGATTCTTGA ATAAAGAAAA TCCCGTTGCA	660
AGACGGGGTT TTGTGTTATA ATAGAGGCAT GAAACAAAT GATATTGTCT ATGGTGTCCA	720
CGCCGTTACC GAAGCCCTCC TTGCAAATAC AGGAAACAAA CTCTACCTCC AAGAAGATCT	780
CCGAGGTAAG AATGTTGAGA AAGTCAAGGA ACTAGCTACA GAAAAGAAGG TGTCCATTTC	840
TTGGACATCA AAAAAATCTC TCTCTGAGAT TACTGAAGGT GCTGTTTCATC AAGGTTTGT	900
TCTACGAGTG TCTGAATTTG CCTATAGCGA GCTAGATTAC ATCCTTGCAA AAACACGCCA	960
AGAAGAAAAT CCACTTCTAT TGATTCTAGA TGGTCTAACC GATCCCCATA ATCTGGGTTT	1020
TATCTTGCGA ACAGCCGATG CGACCAATGT TTCAGGTGTC ATCATTCCCA AGCACCGTAC	1080
TGTCGGAGTA ACTCCTGTCG TTGCCAAAAC AGCCACAGGT GCTATTGAAC ACGTtCCAAT	1140
TGCCCCGAGT ACCAACCTCA GTCAAACCTT AGGATAAACT TAAGGATGAA GGTTCCTGGA	1200
CCTTTGGAAC GGATATGAAC GGTACTCCTT GCCACAAGTG GAATACAAA GGGAAAATCG	1260
CCCTCATCAT TGGAAATGAA GGAAAAGGTA TCTCTAGCAA CATCAAAAA CAGGTCGATG	1320
AAATGATTAC CATTCCGATG AATGGACATG TTCAAAGCCT TAATGCCAGT GTTGCTGCGG	1380

532

CCATTCTCAT GTACGAAGTT TTCCGAAATA GACTATAAAA AAGTTTCCAG TCATCTGATT	1440
GGAAACTTTT TTATGATTAA CTATGTTCTG TAATGAATTT ATAGGCTTCT TGACCAGCGA	1500
TAGCTCCATC TCCAACCGCT GTTGTACTTT GGCGAAGGTC TTTCAAGCGA ACATCTCCAA	1560
CTGCAAGAT ACCGTCGACT GCAGTTTCA TGTGGTTATC TGTACAATC CATCCTGCCT	1620
GATCTTGGAT ATTCAATTCT TTAACAAAAT CGCTAAGAGG GTCCAAACCA ACATAGATAA	1680
AGACACCACC GAAGGCTTGT TCTGTCACTT GACCTGTTTT CACATTTTCA AATACGACTG	1740
ATTCTACTCG GTTTTCACCC TTGATTTCCT TACTACAGA ATCCCAGATA AAGCTGATTT	1800
TTTCATTTCG AAAGGCGCGA TCTTGTAATA CCTTTTGGGC ACGAAGTTGG TCACGACGGT	1860
GAACAATGGT AACAGTCTTA GCAAAACGAG TCAAGAAGAG GGCTTCTTCA ACAGCTGAAT	1920
CTCCACCACC AACTACCAAT AAATCTTGGT CACGGAAGAA AGCACCATCA CACACAGCAC	1980
AGTAAGAAAC ACCACGACTG TTCAGTTCTT CTTCTCCAGG CACTCCCAA GGACGGTGTT	2040
TAGAACCAGT TGCTACGATA ACTGTACGTG TTTTCATATG TTGGTCATCA GTCATCACTT	2100
TCTTAAATC ACCATGGCTT CGACATTTT AACATAACCA TAAATGTGCT CAACACCAAG	2160
ATTTTCAAGT GGTTCAAACA TCTTTTCAGC CAATTCAGGT CCACTAATAT TAGCGTATCC	2220
TGGTAATTT TCGATATCAG ATGTATTATT CATCTGACCA CCTGGCAGAC CACCTTCAAT	2280
CAAAGTACT TTTAGATTGC TTCGAGCAGC ATACAAGGCC GCAGTCATCC CTGCAGGTCC	2340
AGCACCAGATA ATAATAGTAT CGTACATATA GATTCCTTCT TTCTTGGTGT AACTATCTTT	2400
ATTCTAACTC TG	2412

(2) INFORMATION FOR SEQ ID NO: 63:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7760 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

CCGATTTGGT GGAATTTTGG TCTCATCATT TAGAAGGTGT TGCAAGAGCA GAGTTTACCT	60
TGGTGCTTCA TACCAAATTG GGAGAAGCCT CTGTTTGGC AAATATTGTA GATGTAAACA	120
AGGATGAATG GATTTTAGGA ACAGTTGCTG GTGCCAATAC CTTATTGGTT ATTTGTCGAG	180
ATCAGCACGT TGCCAACTC ATGGAAGATC GTTGTCTAGA TTTGATGAAA GATAAGTAAG	240
GTCTTGGGAG TTGCTCTCAA GACTTATTTT TGAAAAGGAG AGACAGAAAA TGGCGATAGA	300
AAAGTTATCA CCCGGCATGC AACAGTATGT GGATATTAAA AAGCAATATC CAGATGCTTT	360

533

TTTGCTCTTT CGGATGGGTG ATTTTATGA ATTATTTTAT GAGGATGCGG TCAATGCTGC	420
GCAGATTCTG GAAATTCCT TAACGAGTCG CAACAAGAAT GCCACAATC CGATCCCTAT	480
GGCGGGTGTT CCCTATCATT CTGCCCAACA GTATATCGAT GTCTTGATTG AGCAGGGTTA	540
TAAGGTGGCT ATCGCAGAGC AGATGGAAGA TCCTAAACAA GCAGTTGGGG TTGTTAAACG	600
AGAGGTGTT CAGGTCATTA CGCCAGGGAC AGTGGTCGAT AGCAGTAAGC CGGACAGTCA	660
GAATAATTTT TTGGTTTCCA TAGACCGCGA AGGCAATCAA TTTGGCCTAG CTTATATGGA	720
TTTGGTGACG GGTGACTTTT ATGTGACAGG TCTTTTGAT TTCACGCTGG TTTGTGGGGA	780
AATCCGTAAC CTCAAGGCTC GAGAAGTGGT GTTGGGTTAT GACTTGCTCG AGGAAGAAGA	840
ACAAATCCTC AGCCGCCAGA TGAATCTGGT ACTCTCTTAT GAAAAAGAAA GCTTTGAAGA	900
CCTTCATTTA TTGGATTGTC GATTGGCAAC GGTGGAGCAA ACGGCATCTA GTAAGCTGCT	960
CCAGTATGTT CATCGGACTC AGATGAGGGA ATTGAACCAC CTCAAACCTG TTATCCGCTA	1020
CGAAATTAAG GATTTCTTGC AGATGGATTA TGCACCAAG GCTAGTCTGG ATTTGGTTGA	1080
GAATGCTCGC TCAGGTAAGA AACAAGGCAG TCTTTCTTGG CTTTGGATG AAACCAAAAC	1140
GGCTATGGGG ATCGCTCTCT TCGTTCCTTG GATTCATCGC CCCTTGATTG ATAAGGAACG	1200
AATCGTCCAA CGTCAAGAAG TAGTGCAGGT CTTTCTCGAC CATTTCTTTG AGCGTAGTGA	1260
CTTGACAGAC AGTCTCAAGG GTGTTTATGA CATTGAGCGC TTGGCTAGTC GTGTTCTTTT	1320
TGGCAAAACC AATCCAAAGG ATCTCTTGCA GTTGGCGACT ACCTTGCTTA GTGTGCCACG	1380
GATTCGTGCG ATTTTAGAAG GGATGGAGCA ACCTACTCTA GCCTATCTCA TCGCACAACT	1440
GGATGCAATC CCTGAGTTGG AGAGTTTGAT TAGCGCAGCG ATTGCTCCTG AAGCTCCTCA	1500
TGTGATTACA GATGGGGGAA TTATCCGGAC TGGATTGAT GAGACTTTAG ACAAGTATCG	1560
TTGCGTCTC AGAGAAGGGA CTAGCTGGAT TGCTGAGATT GAGGCTAAGG AGCGAGAAAA	1620
CTCTGGTATC AGCACGCTCA AGATTGACTA CAATAAAAAG GATGGCTACT ATTTTCATGT	1680
GACCAATTCG CAACTAGGAA ATGTGCCAGC TCACTTTTTC CGCAAGCGA CGCTGAAAAA	1740
CTCAGAACGC TTTGGAACCG AAGAATTAGC CCGTATCGAG GGAGATATGC TTGAGGCGCG	1800
TGAGAAGTCA GCCAACCTCG AATACGAAAT ATTTATGCGC ATTCGTGAAG AGGTCGGCAA	1860
GTACATCCAG CGTTTACAAG CTCTAGCCCA AGGAATTGCG ACGGTTGATG TCTTACAGAG	1920
TCTGGCGGTT GTGGCTGAAA CCCAGCATTT GATTGACCT GAGTTTGGTG ACGATTCACTA	1980
AATTGATATC CGGAAAGGC GCCATGCTGT CGTTGAAAAG GTTATGGGGG CTCAGACCTA	2040
TATTCCAAAT ACGATTGAGA TGGCAGAAGA TACCAGTATT CAACTGGTTA CAGGGCCAAA	2100

534

CATGAGTGGG AAGCTACCT ATATGCGTCA GTTAGCCATG ACGGCGGTTA TGGCCCAGCT	2160
GGGTTCTCTAT GTTCTGCTG AAAGCGCCCA TTTACCGATT TTTGATGCGA TTTTACCCTG	2220
TATCGGAGCA GCAGATGACT TGGTTTCGGG TCAGTCAACC TTTATGGTGG AGATGATGGA	2280
GGCCAATAAT GCCATTTTCG ATGCGACCAA GAACTCTCTC ATTCTCTTTG ATGAATTGGG	2340
ACGTGGAACT GCAACTTATG ACGGGATGGC TCTTGCTCAG TCCATCATCG AATATATCCA	2400
TGAGCACATC GGAGCTAAGA CCCTCTTTGC GACCCACTAC CATGAGTTGA CTAGTCTGGA	2460
GTCTAGTTTA CAACACTTGG TCAATGTCCA CGTGGCAACT TTGGAGCAGG ATGGGCAGGT	2520
CACCTTCCTT CACAAGATTG AACCGGGACC AGCTGATAAA TCTACGGTAT CCATGTTGCC	2580
AAGATTGCTG GCTTGCCAGC AGACCTTTTA GCAAGGGCGG ATAAGATTTT GACTCAGCTA	2640
GAGAATCAAG GAACAGAGAG TCCTCCTCCC ATGAGACAAA CTAGTGCTGT CACTGAACAG	2700
ATTTCACTCT TTGATAGGGC AGAAGAGCAT CCTATCCTAG CAGAATTAGC TAAACTGGAT	2760
GTGTATAATA TGACACCTAT GCAGGTTATG AATGTCTTAG TAGAGTTAAA ACAGAACTA	2820
TAAAACCAAG ACTCACTAGT TAATCTAGCT GTATCAAGGA GACTTCTTTG ACAATTCTCC	2880
ACTTTTTTGC TAGAATAACA TCACACAAAC AGAATGAAAA GGAGCTGACG CATTGTGCGT	2940
CCCTTTTGTG TATTTTTTAA GGAGAAAGTA TGCTGATTCA GAAAAATAAA ACCTACAAGT	3000
GGCAGGCCCT GGCTTCGCTC CTGATGACAG GCTTGATGGT TGCTAGTTCA CTCTGCAAC	3060
CGCGTTATCT GCAGGAAGTC TTAGGCGCCC TCCTTACTGG GAAATATGAA GCTATTTATA	3120
GTATCGGGC TTGGTTGATT GGTGTGGCCG TAGTCGGTCT AGTGTCTGGT GGAATCAATG	3180
TTGTCTCTGC AGCCTATATT GCCCAAGGAG TTTTCATCCG CCTTCGGGAG GATGCCCTTC	3240
GTAATAATCA AACCTTTTCT TATGCTGATA TTGAACAATT TAATGCGGGA AATCTAGTCG	3300
TTCAATGAC AAATGATATC AACCAGATTC AGAACGTGT CATGATGACC TTCCAAATTC	3360
TTTTTCAGACT TCCCTCTTG TTCATCGGTT CGTTTATCCT AGCGGTTCAA ACCTTACCTT	3420
CTCTGTGGTG GGTGATTGTT CTCATGGTAG TCTTGATTTT TGGTTTGAAT GCTGTCATGA	3480
TGGGAATGAT GGGGCCTCGT TTTGCCAAGT TTCAAACCCT TCTTGAGCGC ATCAATGCCA	3540
TTGCCAAGGA AAATTTACGT GCGTTCGTG TGGTCAAGTC CTTTGTCCAA GAAAAAGAGC	3600
AATTTGTAA GTTTACAGAG GTCTCAGACG AGCTTCTTGG TCAAAACCTT TACATTGGTT	3660
ATGCCTTTTC AGTAGTGAA CCCTTTATGA TGTGGTTGG TTACGGGGCG GTCTTCCTCT	3720
CTATTTGGCT GGTGCGGGA ATGGTTCAGT CGGATCCGTC TGTGTTGGT TCCATCGCTT	3780
CTTTTGTTAA TTACCTAAGC CAGATTATCT TTACCATTGT TATGGTTGGA TTTTGGGAA	3840
ATTCTGTCAG CCGTGCCATG ATTTCCATGC GTCGTATTCG AGAAATCTT GACGCAGAGC	3900

535

CAGCTATGAC CTTCAAGGAT ATCCCAGATG AAGAGTTGGT TGGAAATCTT AGCTTTGAAA	3960
ATGTGACCTT TACCTATCCA ATGGACAAGG AACCGATGCT GAAAGATGTG AGCTTTACTA	4020
TTGAACCTGG TCAAATGGTT GGTGTAGTTG GACCGACTGG TGCAGGAAAG TCAACCTTGG	4080
CTCAATTGAT TCCACGTCTC TTTGATCCAC AGGACGGGGC CATTAAAAATC GGTGGCAAGG	4140
ATATTGAGAG AGTGAGTGAA GGAACCTGC GTAAAACAGT TTCCATCGTT CTCCAACGTG	4200
CCATTCTTTT TAGTGAACG ATTGCAGATA ACTTGAGACA GGGGAAGGGG AATGCTACTC	4260
TATTTGAAAT GGAGCGCGCA GCCAATATTG CCCAGGCTAG TGAATTCATT CATCGTATGG	4320
AGAAAACCTT TGAAGTCCA GTTGAAGAAC GGGGAACCAA TTTCTCTGGT GGACAAAAAC	4380
AAAGGATGTC GATTGCGCGT GGGATTGTCA GCAATCCACG TATTCTGATT TTTGATGATT	4440
CGACCTCAGC CTTGGATGCC AAATCAGAGC GCTTGGTGCA AGAAGCTTTG AATAAGGACT	4500
TGAAGGGGAC GACAACCAT ATTATTGCTC AAAAAATTAG CTCGGTTGTC CATGCAGACA	4560
AGATCTTGGT TCTAAATCAA GGACGATTGA TTGGTCAAGG TACGCATGCA GACTTGGTTG	4620
CCAACAATGC CGTTTACCGT GAAATCTATG AAACACAGAA ATGAAAGACA AACTATAAGA	4680
AAAGTCAATA GTTTTATCTA AACTATTTCT TATTTCAATT TGATGATTTG GCGATGATT	4740
TAGAGCACGG CAAAAAGCCC TTGAAAAAGT CCATTTTTC AAAGGTAATC CTGTGTTAAT	4800
FTCAGAAATT ACATCACTTT TTGTTCTGCA AATGGCAGCT CTTTTTTTAG GATATAAAAC	4860
AGGGTTCGGA TAAGTTTTT TGCAAGGTGG ATGATGGCTA CATTGTAATG TTTTCTTGT	4920
TCTAATTTAG TCTTAAGATA GGCCTTAAAA GCAGGCGAAA AGCGAGGGCA TGCTTTGGCA	4980
GCTTGTATGA GTACCTACCG CAGATGAGGG GAACTCCGTT TGACCATCTT TCCTGCTAAA	5040
TCAATCTGAT CTGACTGATA AATAGAAGAA TCCAGTCCAG CGAAAGCTTG TAATTGAGCA	5100
GGATTATCAA AGGCATGAAT ATTTGGAATC TCAGCTAAAA TGACCGCCCC TAAACGATCC	5160
CCAATCCCAG TAACCGTCGT GATGACCGAG TTGAACTCAG CCATCAAGTC ATTGACACAT	5220
GTTTCCGCCT TGTCAATGAG CCTCTTGTA TGTTTGATGT TTTTATTACA CGAGATAAAA	5280
CGTCTATGCG TTATCAAACCT CATTACCAAT TAAACAAAA AGCTGTGGTT AGATCCTTTC	5340
GGAAATTGTC AAGCGATTGG AGGAAATGAA CTAATCCACA GCGGCTTATT CCAAGTATAC	5400
CACTTGGGCT TTGGCAGTAG CTAATGCGC TAAATATAAT ATAAGGAGGA GTAAATGAA	5460
GACAGTTCAA TTTTMTTGGC ATTATTTTAA GGTCTACAAG TTCTCATTG TAGTTGTCAT	5520
CCTGATGATT GTTCTGGCGA CTTTGGCCCA AGCCCTCTTT CCAGTCTTT CTGGACAAGC	5580
GGTGACGCAG CTAGCCAATT TAGTTCAAGC TTATCAAAAT GGCAATCCAG AACTTGTATG	5640

536

GCAAAGCCTA TCAGGAATCA TGGTCAATCT TGGCCTGCTG GTTTTGGTTC TATTTATCTC	5700
TAGTGTAATA TACATGTGTC TCATGACGCG CGTGATTGCA GAATCGACCA ACGAGATGCG	5760
CAAAGGCCTC TTTGGTAAGC TTGCTCAGTT GACGGTTTCT TTCTTTGACC GTCGACAAGA	5820
TGGCGATATC CTGTCTCATT TTACCAGTGA TTTGGATAAT ATCCTCCAAG CCTTTAACGA	5880
AAGCTTGATT CAGGTCATGA GCAATATTGT TTTATACATT GGTCTGATTC TTGTCATGTT	5940
TTTCGAGAAAT GTGACGCTGG CTCTCATCAC CATTGCCAGC ACCCCATTGG CTTTCCTTAT	6000
GCTGATTTTC ATCGTGAAAA TGGCACGCAA ATACACCAAC CTCAGCAGA AAGAGGTAGG	6060
GAAGCTCAAC GCCTATATGG ATGAGAGCAT CTCAGGCCAA AAAGCCGTGA TTGTGCAAGG	6120
AATTCAAGAG GATATGATGG CAGGATTTCT TGAACAAAAT GAGCGCGTGC GCAAGGCAAC	6180
CTTTAAAGGA AGAATGTTCT CAGGAATTCT TTTCCCTGTC ATGAATGGGA TGAGCCTGAT	6240
TAATACAGCC ATCGTCATCT TTGCTGGTTC GGCTGTACTT TTGAATGATA AGTCTATTGA	6300
AACAAGTACA GCCCTAGGTT TGATTGTTAT GTTTGCACAA TTTTCACAGC AGTACTACCA	6360
GCCTATTATC CAAGTTGCAG CGAGTTGGGG AAGCCTTCAG TTGGCCTTTA CTGGAGCTGA	6420
ACGAATTCAG GAAATGTTTG ATGCAGAGGA GGAAATCCGA CCTGAAAAGG CTCCAACCTT	6480
CACTAAGTTG CAAGAAAGTG TTGAAATCAG TCATATCGTT TTTTCATACT TGCCTGATAA	6540
ACCTATTTTG AAAGATGTCA GCATTCTGC CCCTAAAGGC CAGATGACAG CAGTTGTTGG	6600
GCCGACAGGT TCAGGAAAAA CGACTATTAT GAACCTCATC AATCGCTTTT ATGATGTTGA	6660
TGCTGGTGGT ATTTATTTTG ATGGTAAAGA CATTGCTGGC TATGACTTAG ATAGTCTTAG	6720
AAGCAAGGTG GGAATTGTAT TGCAAGATTC GGTCTTGTTT AGCGGAACGA TTAGAGACAA	6780
TATCCGATTT GGTGTGCCAG ATGCTAGTCA GGAAATGGTT GAGGTAGCAG CAAAAGCAAC	6840
CCACATTCAC GACTATATCG AAAGTTTGCC TGATAAGTAC GATACTCTTA TTGATGATGA	6900
CCAGAGCATC TTTTCAACAG GGCAGAAGCA ATTGATTTCA ATCGCTCGAA CCCTGATGAC	6960
AGATCCAGAA GTTCTCATTC TCGATGAAGC AACTTCAAAC GTAGATACGG TGACAGAAAG	7020
CAAGATTCAG CATGCCATGG AGGTGGTTGT AGCAGGTAGA ACTAGTTTCG TCATTGCCCA	7080
CCGCTTGAAA ACCATTCTCA ATGCAGATCA GATTATTGTC CTTAAAGATG GAGAAGTCAT	7140
TGAACGTGGT AACCACCATG AACTTTTGAA GCTAGTGCGC TTTTATTCAG AACTCTATCA	7200
CAATCAATTT GTTTTCGAAT AAGAAAGAAG TTGTCCTATG TGGGCAGCTT TTTCTTGTC	7260
ATAAAAAATG TTTATCACAG CCTTAAAAA AACATATTAG ACGAAAGTCA TTTTGAGTGA	7320
TATGATAGGA CTATCGTTAG CATTGAAAG GAGAGGCATC ATGGCTAGAA CGGTGTAGG	7380
AGTTGCTGCA AATCTATGTC CCGTAGACGC AGAAGGCAAA ATCATTCATT CATCTGTATC	7440

537

TTGTAGATTC GCAGAGATCA TTCGTCAAGT CGGTGGTCTC CCTTTAGTCA TTCCTGTTGG	7500
TGATGAGTCA GTTGTACGTG ATTATGTGGA AATGATTGAC AAACCTATTT TGACAGGAGG	7560
CCAAAATGTT CATCCTCAGT TTTATGGAGA GAAAAAGACC GTCGAGAGCG ATGATTACAA	7620
TCTGGTCCGT GACGAATTTG AATTGGCACT CTTGAAGGAA GCGCTTCGTC AGAATAAACC	7680
AATTATGGCA ATCTGTGCGG GTGTCCAAC TGTCAATGTT GCCTTTGGTG GAACCCCTCA	7740
TCAAGAAATC GAAGGTCAGG	7760

(2) INFORMATION FOR SEQ ID NO: 64:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2723 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

GAGGTTTAA TTCACTTACC TCTSCGTAT CTTTATTTAA AATGAATTCT TTTACGGTTG	60
TATTTCTTGC AAAATCTTTT ACAACAATCT TAATGTTTAG TGTCTGTCT ATTATTTGTT	120
TAATATCATT AAATGATGTA TATTTCTTTC CATTTATATA AATATGTTGT TCTTGAATCT	180
CACCATCGAA TCCATTATTT CTTTATCAT TGATGTTAAA GACTACAGAT TTTCCATCAG	240
CATATTCGAT ACTAGTATTT CCCTTAGGAT CAATGTTTAC TTCGGGTTTA ACATTATCAT	300
ATAAAAAC TG ATAGTGGACT CCAACTGC TT TAGCATTC AA ATCGCTATAG CCAGTTTGAA	360
GATAAACATT TCCATCCATA TCTGTTACCT TATCTGGAAA TCCGTTTGCT TTATAGTCTT	420
TCATTCCCCA GTCCATGATG TCACCGTCTT TAACATTCAG CTTAATATTA AAATCTCTAG	480
TGTTATCAAT GTGTAAATCT CCGTAGATTA AATAATTATC TACAACCGAT TCATTAAC TC	540
TCAATCCCA GTTAAACCA CCCTTATCAG AAATCTTACC TCTTAAATAA AATTCTGGAT	600
TTCGTACATA AATTTTATTA GATTTAGATG GATTAAAGTA GTTCTTATCC ATTGAAAGGT	660
TTACTGGTTT GGTATCAATA AATAACATGG AGCCATCTTC TTTTATAGCT TCTACATTGA	720
ACTTATCCTC TCCAGTGTAT TCTTTATCAT CCTTACCAA TAATACAAGT TTAGAAGAAT	780
CTGTCACAAG ATTTCCGTCT TTATCGATAG CTTCCCTTT ATCGTTCATT TTAAATGTAA	840
ACACTTGATA CCTTATAATG TTAAAGCCGT CCAAAGCCGA CATTAAATACA GATTGGGTAC	900
TTCTTCCATC TTCAACATTT CTACTATCAG CATAAATTGT TGTTTCTGAA AGGGCTCTTA	960
GATTAGGATT GGCCTTTTGT ATTTTGTGTA TATCTTCCTT GCTATAGACT CCATTTCTCT	1020

538

CTAACATATC CGTTTTTCCA GGATTATAGG TAGTCACTTT TAGTGCATAG CCTTTTCTTA	1080
GAATGATATT ATCCTTTAAC AGATATTGTT GTTTTTCTGA ATCAGAATAG ATTTTACCAG	1140
ATTCCATTTT AGTTAAATG TCTGGTTTGT TTTTGGAAAG ATCTCCTTCC CCTAATCTA	1200
TGACATTCCC ATAACCTGAT ACATAGGGAT ATTCTGATTT AGTTTCCTTA ATTTTTCAG	1260
GCATTCTAAT TTTAATTTCA GCTTTTTTCT GATCATTATC TTTAACAAAT AATCTCATAT	1320
CTCCTGCAAA AGCTAATCCA TCCACAATAT CATTAATATT AGCGTATAGA TCAAATGTCA	1380
TCGTTTTTGA GTGGAAATCA TACTTGGTCG CTTTGATTTT TATAGATTTA TAGTTATTCC	1440
CATAATATAC CTTGGCATTT TTAGAAACAT TACTTATCTT TCCAAGAATT TCAAAGTGT	1500
CATCTTTAGA CGGACTTAGA ACACCATAAA TTTTGTATTT GATTTCGTCA AGTTTCTCAG	1560
TTTCATATTC TAGATCAGTC CCATCATCGT AGGCTATTAT ATTTCCTTTA TCATCGTATT	1620
TATAATCGTA TTCCTCCATT CTCTTACCAG TTTCACCTGT AAAATCATCA ACTTCTCTAA	1680
ATTTCTTTTT AATGAGTTT TTTAAGTCTT TATTTTCAA GTCTCTAATT GTTGAAATAT	1740
TTCTATCAAT AGTAAACTA GATTTTCTT TAATAGACTC TTCATTTTCT TGATGATGAT	1800
GTTCTACCCC AGTGTATCT TTTTGTAGAC TACCCTCTT TCCATTTCCCT AAATTTTAA	1860
ATTTAGATTC TGCAATCTCG CCAAGCTTTT GATATTTAGA TGAATCTTGA TCAGGATCTA	1920
CTAGATAATA GGAATCATC CCCTTTTCAT CAGCCTGATT AGCAAATTTA ATTCTATGAA	1980
TCTTTGTGAA ATTGCTAGAA CCATCTAATG CAATGACTTC AATGATTTT CCCCTTAAAT	2040
CTCCCGCACC TTTAATTTCA TAAATGGTAT TTCCGCTTTT ATCAAGTTTT CTATTTCTTC	2100
CTTGACCTC ACCTGCGTAA GTTACTTCAA GATTTTTTTC AACCTCTCCA TCTTCATTAA	2160
CAAGAGCGGC GCCAGCATAC CAACTTTCGT TCGCAATCTC GTCAAATTTT TCAGGATGTT	2220
CTTTTGTATC TCTCGCAAAT AGCGTTTCAT TCTTATACTG ATCTTTTACC TTATGATAAG	2280
TATCCTTTGT AATCAACTTA ATTTTTCAG GATTTGAAAA ATCAACCGAA ACAATCTTAG	2340
GGGCGGTGTT ATCAATTTTT ACAGGAATAT AGGAAACCTG CCATGGGTAA TCTTTAGTTA	2400
ATCTATATTT AAATTTATAG AAATATTGAC CTTCCGCAAT CGGTTCAAAT TGACCTCTTA	2460
TCTTAGTAGC AGGATCTTGA TTATCCTTAC TTTCTGGTGC ATTTTCTTCT CTACCTCTAG	2520
GATTATAGAT GAGTCCATCC CACTTCAAGT CACCCCAAAC TTTTAGTTTA GATGATTGA	2580
TTCCCTTGC ATCATTGCTT TTAGAATTTA AAATCCTCT AATAAAGTGT TCTCTCGAAA	2640
TGACTTTTAA GTCTCTTGA TTTTCTCCCT CTTTATTGT ATTACTATT GAAATCAATC	2700
CTTCTCTGC ACTTCTTAAT ACA	2723

(2) INFORMATION FOR SEQ ID NO: 65:

539

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11831 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

AAAAAAGTGG GAATGACTCA AATCTTCACT GAAGCTGGCG AATTGATCCC TGTAACAGTT	60
ATTGAAGCAA CTCCAAACGT TGTTCCTCAA GTTAAACTG TTGAAACAGA CGGATACAAC	120
GCTATCCAAG TTGGTTTCGA TGACAAACGC GAAGTATTGA GCAACAAACC TGCTAAAGGA	180
CATGTAGCGA AAGCTAACAC GGCTCCTAAG CGCTTCATTC GTGAATTCAA AAACGTTGAA	240
GGCTTGAAG TTGGTGCTGA AATTACAGTT GAAACATTCG CAGCTGGAGA CGTTGTTGAC	300
GTAACGGGTA CTTCTAAAGG TAAAGGTTTC CAAGGTGTTA TCAAACGCCA CGGACAATCA	360
CGTGGACCAA TGGCTCACGG TTCTCGTTAC CACCGTCGTC CAGGTTCTAT GGGGCTGTT	420
GCACCTAACC GCGTATTCAA AGGTAAAAAC CTTGCAGGAC GTATGGGTGG CGACCGCGTA	480
ACAATTCAAA ACCTTGAAGT TGTACAAGTT GTTCCAGAAA AGAACGTTAT CCTTATCAAA	540
GGTAACGTAC CAGGTGCTAA GAAATCTCTT ATCACTATCA AATCAGCAGT TAAAGCTGGT	600
AAATAATAAA GAAAGGGGAA ATCAGTCACA ATGGCAAACG TAACATTATT TGACCAAAT	660
GGTAAAGAAG CTGGCCAAGT TGTCTTAGC GATGCAGTAT TTGGTATCGA ACCAAATGAA	720
TCAGTTGTGT TTGATGTAAT CATCAGCCAA CGCGCAAGCC TTCGTCAAGG AACACACGCT	780
GTAAAAAACC GCTCTGCAGT ATCAGGTGGT GGACGCAAAC CATGGCGTCA AAAAGGAACT	840
GGACGTGCTC GTCAAGGTTT TATCCGCTCA CCACAATGGC GTGGTGGTGG TGTGTCTTC	900
GGACCAACTC CACGTTTATA CGGCTACAAA CTTCCACAAA AAGTTCGTCG CCTAGCTCTT	960
AAATCAGTTT ACTCTGAAAA AGTTGCTGAA AACAAATTCG TAGCTGTAGA CGCTCTTTCA	1020
TTTACAGCTC CAAAACTGC TGAATTTGCA AAAGTTCTTG CAGCATTGAG CATCGATTCT	1080
AAAGTTCTTG TTATCCTTGA AGAAGGAAAT GAATTCGCAG CTCTTTCAGC TCGTAACCTT	1140
CCAAACGTGA AAGTTGCAAC TGCTACAACT GCAAGTGTTT TTGACATCGC AAATAGCGAC	1200
AAACTTCTTG TCACACAAGC AGCTATCTCT AAAATCGAGG AGGTTCTTGC ATAATGAATT	1260
TGTATGATGT TATCAAAAAA CCTGTCATCA CTGAAAGCTC AATGGCTCAA CTTGAAGCAG	1320
GAAATATATG ATTTGAAGTT GACACTCGTG CACACAAACT TTTGATCAAG CAAGCTGTTG	1380
AAGCTGCTTT CGAAGTGTTT AAAGTTGCCA ATGTTAACAC AATCAACGTA AAACCAAAAG	1440

540

CTAAACGTGT TGGACGTTAC ACTGGTTTTA CTAACAAAAC TAAAAAAGCT ATCATCACAC	1500
TTACAGCTGA TTCTAAAGCA ATCGAGTTGT TTGCTGCTGA AGCTGAATAA TCTAAGGAGG	1560
AAATATCGTG GGAATTCGTG TTTATAAACC AACACAAAC GGTCCGCGTA ATATGACTTC	1620
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GAGCAAGGCT GGTGTAACA ACAACGGTCG TATCACAGTT CGTCACCAAG GTGGTGGACA	1740
CAAACGTTTC TACCGTTTGG TTGACTTCAA ACGTAATAAA GACAACGTTG AAGCAGTTGT	1800
TAAACAATC GAGTACGATC CAAACGTTTC TGCAAAATC GCTCTGTAC ACTACACTGA	1860
CGGTGTGAAA GCATACATCA TCGCTCCAAA AGGTCTTGAA GTAGGTCAAC GTATCGTTTC	1920
AGGTCCAGAA GCAGATATCA AAGTCGAAA CGCTCTTCCA CTTGCTAACA TCCCAGTTGG	1980
TACTTTGATT CACAACATCG AGTTGAAACC AGTCGTGGT GGTGAATTGG TACGTGCTGC	2040
TGGTGCATCT GCTCAAGTAT TGGGTCTGA AGGTAAATAT GTTCTGTTC GTCTTCAATC	2100
AGGTGAAGTT CGTATGATTC TTGGAACCTG CCGTGCTACA GTTGGTGTG TCGGAAACGA	2160
ACAACATGGA CTGTGTAACC TTGGTAAAGC AGGACGTAGC CGTTGGAAG GTATCCGCC	2220
AACAGTTCGT GGTTCGTAA TGAACCCTAA CGATCACCCA CACGGTGGT GTGAAGGTAA	2280
AGCACCAGTT GGTGTAAG CACCATCTAC TCCATGGGGC AAACCTGCTC TTGGTCTTAA	2340
AACTCGTAAC AAGAAAGCGA AATCTGACAA ACTTATCGTT CGTCGTCGCA ACGAGAAATA	2400
ATATTAAACT AGTCGCTTAA GCAACTAGTA AATCCGCCAG CTCGGTAGCG CTCCATAGGA	2460
GTGCAAGCCG CTGTGGTACA ACATTTAAAG GAGAAAATAT AAAAATGGGA CGCAGTCTTA	2520
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AAAAGAAAA AGTTATTAAA ACTTGGTCAC GTCGTTCAAC GATCTTCCCA AGTTTCATTG	2640
GTTACACTAT TGCAGTTTAT GACGGACGTA AACACGTACC TGTTTACATC CAAGAAGACA	2700
TGGTAGGCCA CAAACTTGGT GAATTTGCAC CAACTCGTAC TTACAAAGGT CACGCTGCAG	2760
ACGACAAGAA AACACGTAGA AAATAAGGAG AACATAAATG GCAGAAATTA CTTCAGCTAA	2820
AGCAATGGCT CGTACAGTAC GTGTTTCACC TCGTAAATCA CGTCTGTTC TTGATAACAT	2880
CCGTGGTAAA AGCGTAGCCG ATGCAATCGC AATCTTGACA TTTACTCCAA ACAAAGCTGC	2940
TGAAATCATC TTGAAAGTTT TGAAGTCAGC TGTAGCTAAC GCTGAAAACA ACTTTGGTTT	3000
GGATAAAGCT AACTTGGTAG TATCTGAAGC ATTCGCAAAC GAAGGACCAA CTATGAAACG	3060
TTTCCGTCCA CGTGCAGAAAG GTTCAGCTTC ACCAATCAAC AAACGTACAG CTCACATCAC	3120
TGTAGCTGTT GCAGAAAAAT AAGGAGGTAA AATCGTGGGT CAAAAAGTAC ATCCAATTGG	3180
TATGCGTGTC GGCATCATCC GTGATTGGGA TGCCAAATGG TATGCTGAAA AAGAATACGC	3240

541

GGATTACCTT CATGAAGATC TTGCAATCCG TAAATTCGTT CAAAAAGAAC TTGCTGACGC	3300
AGCAGTTTCA ACTATTGAAA TCGAACGCGC AGTAAACAAA GTTAACGTTT CACTTCACAC	3360
TGCTAAACCA GGTATGGTTA TCGGTAAAGG TGGTGCTAAC GTTGATGCaC TCCGTGCAAA	3420
ACTTAACAAA TTGACTGGAA AACAAGTACA CATCAACATC ATCGAAATCA AACAACTGA	3480
TTTGGATGCT CACCTTGTA GGAAGGAAT TGCTCGTCAA TTGGAGCAAC GTGTGCTTT	3540
CCGTCGTGCA CAAAAACAAG CAATCCAACG TGCAATGCGT GCTGGAGCTA AAGGAATCAA	3600
AACTCAAGTA TCAGGTCGTT TGAACGGTGC AGATATCGCC CGTGCTGAAG GATACTCTGA	3660
AGGAACTGTT CCGCTTCACA CACTTCGTGC AGATATCGAT TACGCTTGGG AAGAAGCAGA	3720
TACTACATAC GGTAAACTTG GTGTTAAAGT ATGGATCTAC CGTGGTGAAG TTCTTCCAGC	3780
TCGTAAAAAC ACTAAAGGAG GTAAATAACC AATGTTAGTA CCTAAACGTG TTAACACCG	3840
TCGTGAGTTC CGTGGAAAAA TGCGCGGTGA AGCAAAAGGT GGAAAAGAAG TAGCATTCGG	3900
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TCGTATCGCC ATGACTCGTT ACATGAAACG TGGTGGTAAA GTTTGGATTA AAATCTTCCC	4020
ACACAAATCA TAACTGCTA AAGCTATCGG TGTGCGTATG GGATCTGGTA AAGGGGCACC	4080
TGAAGGTGG GTAGCACCAG TTAAACGTGG TAAAGTGATG TTCGAAATCG CTGGTGTATC	4140
TGAAGAGATT GCACGTGAAG CGCTTCGACT TGCTAGCCAC AAATTGCCAG TTAAATGTAA	4200
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TGTTAAAGAA CTTCGTGGTC TTCTCAAGA AGAACTCGCG AAGCGCGAAA ACGAATTGAA	4320
AAAAGAATTG TTTGAACTTC GTTCCAAGC TGCTACTGGT CAATTGGAAC AACAGCTCG	4380
CTTGAAAGAA GTTAAAAAAC AAATCGCTCG CATCAAAACA GTTCAATCTG AAGCGAAATA	4440
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TGTTGTATCT GACAAATGG ACAAGACAAT CACAGTTGTA GTTGAACAA AACGTAACCA	4560
CCCAGTCTAT GGTAAACGTA TTAACCTACT TAAAAAATAC AAAGCTCATG ATGAAAACAA	4620
TGTTGCCAAA GAAGGCGATA TCGTACGTAT CATGGAAACT CGCCCGCTTT CAGCTACAAA	4680
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AGAAAACTGA AATGATTCAA ACAGAACTC GTTTGAAAGT CGCAGACAAC AGCGGTGCTC	4800
GCGAAATCTT GACTATCAA GTTCTTGGTG GTTCAGGACG TAAATTTGCA AACATCGGTG	4860
ATGTTATCGT GGCATCTGTA AAACAAGCTA CTCCTGGTGG TGCGGTTAAA AAAGGTGACG	4920
TTGTTAAAGC AGTTATCGT CTAATAAAT CAGGTGCTCG TCGTGCTGAT GGTTCATACA	4980

542

TCAAATTTGA CGAAAACGCA GCAGTTATCA TCCGTGAAGA CAAAACTCCT CGCGGAACAC	5040
GTATCTTTGG CCCAGTTGCA CGTGAATTGC GTGAAGGTGG CTTTCATGAAG ATCGTGTAC	5100
TTGCTCCAGA AGTACTTTAA TTTTATAGGAA CAACTAGTC CCCTAGCTTC AAGCTAGGGT	5160
GCCCTTATGG GCGTAAGAAA AATCAAGGAG AAACCTAATG TTTGTAAAAA AAGGCGACAA	5220
AGTTCGCGTA ATCGCTGGTA AAGATAAGGG AACAGAAGCT GTTGTCTTA CTGCCCTTCC	5280
AAAAGTAAAC AAAGTTATCG TTGAAGGTGT TAACATTGTT AAGAAACACC AACGTCCAAC	5340
TAACGAGCTT CCTCAAGGTG GTATCATCGA GAAAGAAGCA GCTATCCACG TATCAAACGT	5400
TCAAGTTTGG GACAAAAATG GTGTAGCTGG TCGTGTGGA TACAAATTTG TAGACGGTAA	5460
AAAAGTTCGC TACAACAAAA AATCAGGCGA AGTGCTTGAT TAATCACGAA GGAAAGGAGA	5520
AGTATAATGG CAAATCGTTT AAAAGAAAAA TATCTTAATG AAGTAGTTCC TGCTTTGACA	5580
GAACAATTCA ACTACTCATC AGTGATGGCT GTGCCTAAAG TAGATAAGAT TGTTTTGAAC	5640
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GAATTCCTGG ATAAATGGT ATCAGTTTCA CTTCCACGTG TACGTGACTT CCACGGGTGC	5880
CCAACAAAAT CATTTGATGG ACGCGGAAC TACACACTTG GTGTGAAAGA ACAATTAATC	5940
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GCAAAATAAT ATAGGAGGTA AATCTAATGG CTAAAAATC AATGGTAGCT AGAGAGGCTA	6120
AACGCCAAAA AATTGTTGAC CGTTATGCTG AAAAACGTGC TGCATTAAAG GCGGCAGGGG	6180
ACTACGAAGG TTTATCTAAA TTACCTCGCA ACGCCTCACC GACTCGTTTA CATAATCGTT	6240
GTAGGGTTAC GGGGCGCCCA CATTCAGTTT ACCGCAAAT TGGTCTGAGT CGTATCGCTT	6300
TTCGCGAACT TGCGCATAAA GGTCAAATC CTGGTGTAAC AAAAGCATCT TGGTAATTTA	6360
AGATATCAAG AGCGTCAAAA CTCCAAGTAA AAATAGGAAA CTTGACGAAG AACTAAAGT	6420
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TTTGAACACG AGCTACAGCT TTGGCAAAAA AGACCAATTT GCTTTGGAGC ATTGCTTCTG	6540
CATTAAATTG TCTATTTTGG CTCGTGCTGT TACGCTCTTT GTATCATGTA TTAAGTAGCA	6600
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CGCAGACTTC CTAACTCGTA TTCGTAATGC TAACCAAGCT AAACACGAAG TACTTGAAGT	6720
ACCTGCATCA AACATCAAAA AAGGGATTGC TGAATCCTT AAACGCGAAG GTTTTGTAAG	6780

543

AAACGTTGAA ATCATTGAAG ATGACAAACA AGGCGTCATC CGTGTATTTC TTAAATACGG	6840
ACCAAAATGGT GAGAAAGTTA TCACTAACTT GAAACGTGTT TCTAAACCAG GACTTCGTGT	6900
CTACAAAAAA CGTGAAGACC TTCCAAAAGT TCTTAACGGA CTGGAATTG CCATCCTTTC	6960
AACTTCTGAA GGTTCGCTTA CTGATAAAGA AGCACGCCAA AAGAATGTTG GTGGTGAGGT	7020
TATCGCTTAC GTTTGGTAAA ATCAAGATAC AAAGCTCGTA AAGAACAAAG CAAAATTAGG	7080
AAGTTGGAGA AGTTTGTTTA CAAACAAGCC AACTTATCTA TTTTGACACAG TTCTTAGAGC	7140
GTGTTCAAGT CAGCTCTTGA ACTAAATAAG TATCTGAACC CCGTGAAAAC TGGCCGTTCT	7200
GGCCTGACAA TTAAACAGGA GAAATAAAC ATGTCACGTA TTGGTAATAA AGTTATCGTG	7260
TTGCCTGCTG GTGTTGAAGT CGCTAACAAT GACAACGTTG TAACTGTAAA AGGATCTAAA	7320
GGAGAACTTA CTCGTGAGTT CTCAAAAGAT ATTGAAATCC GTGTGGAAGG TACTGAAATA	7380
ACTCTTCACC GTCCAAACGA TTCAAAAGAA ATGAAAAC TAACACGGAAC TACTCGTGCC	7440
CTTTTGAACA ACATGTTGT TGGTGATCA GAAGGATTCA AGAAAGAACT TGAAATGCGT	7500
GGGGTTGGTT ACCGTGCACA GCTTCAAGGA TCTAAACTTG TTTTGGCTGT TGGTAAATCT	7560
CATCCAGACG AAGTTGAAGC TCCAGAAGGA ATTACTTTTG AACTTCCAAA CCCAACAACA	7620
ATCGTTGTTA GCGGAATTTT AAAAGAAGTA GTTGGTCAAA CAGCTGCTTA CGTACGTAGC	7680
CTTCGTTTAC CAGAACCATA TAAAGGTAAA GGTATCCGTT ACGTTGGTGA ATTCGTTTCG	7740
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TGATTGATGA CGTAGCGGGT GTAACGCTCG CAAGTGCTTC AACTCTTGAT AAAGAAGTTT	8040
CAAAAGGAAC TAAAACTGAA CAAGCCGTTG CTGTCGGTAA ACTCGTTGCA GAACGTGCPA	8100
ACGTAAAGG TATTTTCAAG GTGGTGTTCG ACCGCGGTGG ATATCTATAT CACGGACGTG	8160
TGAAAGCTTT GGCTGATGCA GCTCGTGAAG ACGGATTGAA ATTCTAATAG GAGGACACTA	8220
GAAATGGCA TTAAAGACA ATGCAGTTGA ATTAGAAGAA CGCGTAGTTG CTGTCAACCG	8280
TGTTACAAA GTTGTAAAG GTGGACGTCG TCTTCGTTTC GCAGCTCTTG TTGTTGTTGG	8340
TGACCACAAT GGTGCGGTAG GATTTGGTAC TGGTAAAGCT CAAGAAGTTC CAGAAGCAAT	8400
CCGTAAAGCA GTAGATGATG CTAAGAAAA CTTGATCGAA GTTCCTATGG TTGAACAAC	8460
AATCCACAC GAAGTTCTTT CAGAATTCGG TGGAGCTAAA GTATTGTTGA AACCTGCTGT	8520

544

AGAAGGTTCT GGAGTTGCCG CTGGTGGTGC AGTTCGTGCC GTTGTGGAAT TGGCAGGTGT	8580
GGCAGATATT ACATCTAAAT CACTTGGTTC TAACACTCCA ATCAACATTG TTCGTGCAAC	8640
TGTTGAAGGT TTGAAACAAT TGAACGCGC TGAAGAAATT GCTGCCCTTC GTGGTATTTT	8700
AGTTTCTGAT TTGGCATAAG AAAGGGGATA AAATGGCTCA AATTAAAATT ACTTTGACTA	8760
AGTCTCCAAT CGGACGCATT CCATCACAAC GTAAACTGT TGTAGCACTT GGACTTGGCA	8820
AATTGAACAG CTCTGTTATT AAAGAAGATA ACGCTGCTAT CCGTGGTATG ATCACAGCAG	8880
TATCTCACTT AGTAACAGTT GAAGAAGTAA ACTAATGAaG TTTTAGGGGA TGTGCACTGT	8940
ACCATCCCCT AAAACTAGAT ATAGTCATCT ATGATGACAT CGTATAGGCG AGTTGATGGG	9000
GGAGACAACC TTTTCTCCCT TATCGGCGCT AGCATTTTAC AAAAGAGGAG AAAATAAAAA	9060
TGAAACTTCA TGAATTGAAA CCTGCAGAAG GTTCTCGTAA AGTACGTAAC CGCGTTGGTC	9120
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GTAGCGGTGG CGGAGTTCGC CTTGGTTTTG AAGGTGGACA AACTCCATTG TTCCGTCGTC	9240
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TTGTTAAAGC TGAAAAGTCA GGTATTAAAA TTCTTGGTAA CGGTGAGTTG ACTAAGAAAT	9420
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GTATCGGAAC TAGCATTACA GTTCCTGGTG TGAATGCCAA TAGCTTGAAT GCTTTAAGTG	9660
GATTATCCCT CTTAAACATG TTGAGCTTGG TGTGGGGGAA TGCCCTAAAA AACTTTTCGA	9720
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TGGATATTTT ACCCAAGTTT GTAGAGTGGG GTAAACAAGG GGAAGTAGGT CGAAGAAAAT	9840
TGAATCAAGC TACTCGTTAT ATTGCTCTAG TTCTCGCTTT TGTGCAATCT ATCGGGATTA	9900
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TTTCCTCAAT TCCAGAGATG ATTCAGGGCA TCTATGTGGA CTACTTTGTG AACGTCCCAA	10140
GTAGCCGTAT CACTTCATCT ATCATTTTCG TAATCATTTT GATTATTACT GTATTGTTGA	10200
TTATTTACTT TACAACCTAT GTTCAACAAG CAGAATACAA AATTCCAATC CAATATACTA	10260
AGGTTGCACA AGGTGCTCCA TCTAGCTCTT ACCTTCCGTT AAAAGTAAAC CCTGCTGGAG	10320

545

TTATCCCTGT TATCTTTGCC AGTTCGATTA CTGCAGCCTG CGGCTATTCT TCAGTTTTTG	10380
AGTGCCACAG GTCATGATTG GGCTTGGGTA AGGGTAGCAC AAGAGATGTT GGCAACTACT	10440
TCTCCAACGT GTATTGCCAT GTATGCTTTG TTGATTATTC TCTTTACATT CTTCTATACG	10500
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CATGGAGTTC GTCCTGGTAA AGGTACAGAA GAATATATGT CTAAACTTCT TCGTCGTCTT	10620
GCAACTGTTG GTTCCCTCTT CCTTGGTGTG ATTTCCATTI TACCGATTGC AGCTAAAGAT	10680
GTATTGGTTC TTTCTGATGT TGTTGCCTTT GGTGGAACAA GTCTCTTGAT CATTATCTCT	10740
ACAGGTATCG AAGGAATCAA GCAATTGGAA GGTACCTAT TGAAACGTAA GTATGTTGGT	10800
TTCATGGACA GAACAGAATA AAAGTATTTA CTGAATCAGT AAATACTGAG GGAGTGGAGG	10860
TTTAAACTCT GACATTTGTA AGAGTTGGAT CTCCCCTCTT CTATTTTGTT TTTAAATCGG	10920
GGTGAAAAGA CTTTTTGCTT CTATTTAAAA ATAAAAAAG GAGATCAAAT CATGAATCTT	10980
TTGATTATGG GCTTACCTGG TGCAGGTAAG GGAACCTCAAG CAGCAAAAAT CGTAGAACAA	11040
TTCCATGTTG CACATATCTC AACAGGTGAT ATGTTCCGCG CTGCAATGGC AAATCAAAC	11100
GAAATGGGTG TTCTTGCTAA GTCATATATT GACAAGGGTG AATTGGTTCC TGACGAAGTT	11160
ACAAATGGAA TCGTAAAAGA ACGCCTTTCA CAAGATGATA TTAAAGAAAC AGGATTCCTTA	11220
TTGGATGGTT ACCCACGTAC AATTGAACAA GCTCATGCCT TGGACAAAAC ATTGGCTGAA	11280
CTTGGCATTG AACTAGAAGG TGTATCAAT ATTGAAGTA ACCCTGACAG CCTTTTGGA	11340
CGTTTGAGTG GCGGTATCAT CCACGCGTA ACTGGAGAAA CTTTCCACAA GGTCTTTAAC	11400
CCACCAGTTG ACTATAAAGA AGAAGATTAC TACCAACGTG AAGATGATAA GCCTGAGACA	11460
GTAAACGTC GTTTGGATGT TAATATTGCT CAAGGAGAAC CAATCATTGC TCACTACCGT	11520
GCCAAAGGTT TGGTTCATGA CATCGAAGGT AATCAAGATA TCAATGATGT CTTCTCAGAT	11580
ATTGAAAAAG TATTGACAAA TTTGAAATAA AGCGTTTTTC ACACTTGCAA AAATCCGCTA	11640
CAAATGTTAT ACTGAGATAG TCTGACTTAT AATTGTTGTC TCTGTGTCTA GAGGCATCGA	11700
ATCGAAATTT ATGGAGGTGC TTTTGCCTGG CAAAAGACGA TGTGATTGAA GTTGAAGGCA	11760
AAGTAGTTGA TACAATGCCG AATGCAATGT TTACGGTTGA ACTTGAAAAT GGACATCAGA	11820
TTTTAGCAGG G	11831

(2) INFORMATION FOR SEQ ID NO: 66:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10726 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

546

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

CCCGGCATTT GAAAGCTATT CGTGAAGGAT TTATGATGGC AATGCCTTTG ATTTTAGTCG	60
GCTCTTTATT TCTTATTCTA ATCAGTTGGC CTCAGAGGC TTTTACAAAT TGGCTGAATA	120
GTGTTGGATT GCTAAGTATC TTGACAACTA TGAATCAGTC AACAGTAGCG ATTATCTCCT	180
TGGTCGCTTG TTTTCGGTATT GCCTACAGGT TGTCGGAAGG ATATGGTACA GATGGTCCGT	240
CGGCAGGGAT CATAGCCTTA TCCAGTTTGT TATTGATGGC ACCTCGTTTT TCGAGTATGG	300
TTTATGATAA AAATGGGGAG CAGGTCAAGC AGTTATTTGG CGGCGCAATA CCATTTTCTA	360
GCCTGAATGC ATCTTCTTTG TTTATGGCGA TTACTATTGG ATTGGTTACA GCAGAGATTT	420
ATCGTATGTT TATCCAGCGC GGAATTACGA TAAAAATGCC AAGTGGTGTC CCAGATGTAG	480
TAAGTAAATC ATTTTCAGCT CTTTATCTG GTTTTACTAC TTTTGTTTTG TGGGCTTTGG	540
TCTTAAAAGG TCTTGAAGCG GCAGGAGTTG CAGGAGGTCT CAACGGACTC CTAGGTGCAA	600
TTGTTGGAAC ACCGCTTAAG TTAATTGCAG GAACGCTTCC AGGTATGATT CTATGTGTTA	660
TTGTAAACTC ATTCCTTTGG TTCTGTGGAG TTAATGGGGG ACAAGTTTTA AATGCTTTTG	720
TAGACCCAGT TTGTTACAA TTTACTACAG AAAACCAAGA AGCTGTGGCT GCAGGACAAA	780
CACTCCAACA CATTATTACA TTACCGTTTA AAGATTTATT TGTATTTATT GGTGGCGGTG	840
GAGCGACTAT TGGTCTTGGC ATTTGTCTCT TCCTATTTAG TAAGAGTCGT GCCAATAAAA	900
CATTAGGTAA GCTAGCTATT ATACCGTCTA TTTTAAATAT CAATACAGCT ATTCTATTTA	960
CGTTTCCAAC AGTTTTAAAT CCGATTATGC TGATTCCGTT TATTGCTACT CCTACAATCA	1020
ATGCCTTGAT TACCTATGTA TCAATGGCTG TAGGATTAGT ACCCTATACA ACAGGTGTAA	1080
TCCTTCCGTG GACAATGCCA CCGATTATAG GAGGCTTCCT TGCAACAGGG GCTAGTTGGC	1140
GAGGAGCTCT ATTACAAGTT GTTTTGATTT TGGTTTCTGT AGCAATTTAT TATCCATTCT	1200
TCAAAATGTC AGATAAACGC AATCTTGAAA AAGAAAAAGC TACTGTTGGA GGGAAATAAG	1260
ATGGTTATCA GAGTATTTGA TCAACAGAAA AATACTTATT CTAGCTTTGC CTTAGAGGAA	1320
TTAAGTTACT ATATGAATCG GGTCTTTAAG ACTAACATAG AGCTTGTCGA GGAGAAGGAA	1380
GCGGATATTT TTGTAGGATT AGTCAATAAA GAGGACAGAA AAGACCATGT TCTTATCTCA	1440
TTAGACAAGG GTAAGGGGAG AATPGAGTCT AATACAATTG TAGGTTTACT TATTGGAATT	1500
TACCGAATGT TTCATGAATT TGGGGTTGTG TATACTAGAC CAGGGCGCAG ACATGACTTT	1560
GTTCAGAGT TACGATTGTA AGATTTTTTA GATAAACAGC TATCTATAGA TGAAACAGCC	1620

547

AGTTACTATC ATAGGGGAGT ATGTATAGAG GGAGCGGATT CATTTGAAAA TATACTAGAT	1680
TTTATTGATT GGCTACCTAA GATTGGGATG AACAGTTTTT TCATCCAGTT TGAAAATCCT	1740
TACTCTTTTT TGAAACGTTG GTATGAACAT GAATTTAATC CATATCTAAA TAAAGAACAA	1800
TTTTCAAATG AATTAGTACA AGAATTGAGT GATAGGTTGG ATAAAGAATT GCAAAAAAGA	1860
GGTCTTATTC ATCATCGTGT TGGTCATGGA TGGACAGGTG AAGTTTTAGG TTACTCTTCA	1920
AAATTTGGCT GGAATCAGG TCTTAGTATT TCAGAGGAGA AGAAACCCTA TGTCGCTGAA	1980
ATAAACGGGA AACGAGAATT GTTTAATACG GCTCCGATTT TAACCAGCCT GGATTTTTCA	2040
AATCCAGATG TAGCTGATAA GATGGTAGAA ATTATCAAGG ATTATGCCAA GAAAAGACCT	2100
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TGGGCACCTC AGAAAGAAAA ATTAGATAAT CCTGAACGCT TTACCATGAT GTTTCACCG	2340
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TATCTTTTTG AGTGGCAAAA AGCATTTAAA GGAGATAGTT TCGTATATGA CTATCCTTTA	2520
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GTATCTTATC TTTCCAACCT ACATTTGAAC GGGTACATTT CGTGTCAAGA ATTACGTGCC	2640
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AGTTATGAAG AATTGATTGA AGAATACTTT TCTGCTTTGT ATGGGGAAAA TTGGCAGTCT	2760
GTGTTGAAT ATTTAGAAAA ATTATCCATT TATTCCTCTT GTGATTATTT TAATGCAATT	2820
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AATTTTTTAC CAATTATTGA GGAAAATATT TCTAAGTTAT TAAATAGTCA AAAGGATGAA	2940
TGGAACAGC TCAGTTATCA TCGTGAATAT GTTGTTAAGA TGGCGAAGGC TTTATATCTT	3000
CAAGCAACTG GAAAAACAAG GCAAGCTCAA GATGAATGGA GAAATGTGTT GAATTATATC	3060
CGTGGGCACG AATTGCTATT TCAATCTAAT TTGGATGTTT ATCGTGTAAT TGAAGTAGCA	3120
AAAAATTACG CTGGTTTCCA CTTATAAATC ATAAGTATAG AAAATGAACT AAGGTATTCA	3180
GAGAAGATTG ATCCTAAATA TTAGAAATT TAAGGATTTT TAAGATATTT AGGGTCAACT	3240
TTCTATTTAT ATCGTAGCGA AGTCATTTTA ATAATGATGT GTAAAAGATG GATCAAGATT	3300
GAGGAGGAAG AAAGATGAAA TCAAAAGAAG AAATAAATAT GCTTGTTTTT ACAATTGTCTG	3360

548

CTTACGCAGG AGATGCAAGG TCAGATTTGA TGGATGCTTT GCGGTTTGGC AGAGATGGAT	3420
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GCTACAATAA GCGATATGGT CTTTCTTTTG TTGATTATGA AACACAGAAG AGATATATTA	5040
AGAAAAGTGC TCTTTGGGTA AAAGGGCTAA AACGGAATTA AGGTTAGCGA TTTGACTGAT	5100
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GATGATTATT ATTATGATTC CTA AAAAATTT CGGAGTAGAG TTACCGAGTC CAGCTATTGT	5340
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GATAACTTCG TTTGTCAGTG CCTTTATTAC TGTAATGTT TACCGATTCT GTATT AAGCG	5640
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TATTTTCCCT TTTTCTTTTG TTTTACTTAT TAGTGGTTTG TTAGATATTG TATCTCGGTT	5760
TAGTTTAGAT GTTCCTTTTG CCCAAGTATT TCAACAATA TTGACTCCTA TTTT AAGGG	5820
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TGGAATTCAT GGACCATCTA TTGTCTTACC TGCTGTTACA GCTTTGCAAC TGAGCAATAT	5940
GGAAGAGAAT GCTCAACTTC TTGCAATGG GCAGTCCCT TATCATTCTT TAACACCTAA	6000
TTTCGGGAAT TATATCGCTG CTATTGGAGG AACGGGGGCT ACCTTTGTTG TACCATTTAT	6060
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TGTTTTATT TCGGTAATG AACCTCTTCT ATTTGGTATG CCTGTTATTT TGAATCCCTA	6180
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GGGATTGTTA ATTGGAACGA ATTTTCAACT TATCTCCTTT GTATTTTAT CTTTGATTTT	6360
AGTTGTCGAC ATATTGATTT ATTTGCCATT CTGTAGAGCG TATGATAGAC AGTTACTGGT	6420
GAAAGAAGAT ATTGCAAGCT CAAATGATAT TATTTTAGAG GAGGATACAA GTGAAATAAT	6480
TCCTGGTGAG ATAGATGAAA TAAAAAGTAA GGAGTTGAAA GTACTGGTTC TTTGTGCAGG	6540
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TAGAGTGATT GCGAATTCAG GAGCGTACCG AGCTCATTAT GATATTATGG GTGTTTATGA	6660
TTTAATTATT CTGGCCCCAC AAGTTCGGAG TTATTATAGA GAGATGAAGG TGGATGCAGA	6720
AAGATTAGGT ATTCAGATAG TTGCTACCAG AGGAATGGAA TATATTCATT TAACAAAGAG	6780
TCCAAGTAAA GCCTTACAAT TTGTATTGGA GCATTACCAA GCTGTGTAGT AAGTTTTC	6840
ATCTTTTATT TGAGTAAAGA TTTGTTTAC AGATAGGCTT GGATTAAAA ACGTTCCCC	6900

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TTTTTTAATA TAAGAATCCC TCTTTCACAA TTGTAAAAAG AGGGATTTTG TATTTTATCT	6960
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AATCATTGCA AAGGATAGGA GAATTTTGA GATGGGACTA AAGATTGAGA AACTAGAAGT	7080
GGTTCCTAGA ATAGCCCCGA TATTATTGAA ACAGCTAAAG ACAGCGCTGG TCACGACCAG	7140
AAAATCATTG CTATCTAGGC TGACAATAAA GATAAGCGCT AGCAAAATCA TAGCATAGAT	7200
GACAAAGTAC TTGAGAATCT TATGCTGGGT ATCTTTGTCA ATCACCCTTT TATTAAACATG	7260
GAGGGTCAAA ACACGGTGGG GCGATAGGAT TGACAAAATT TGGTTTTTGG CAATTTTGA	7320
AAGGATGAGG CCTCGAATAA TCTTGAGTCC ACCTGCAGTT GATCCAGCAG AGCCACCGAT	7380
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TCCCGCTGTC CCCATAGCAA TAACAAAAC TCGTAGAGA GGCATACCGG CTAGATAATA	7800
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TCCAATCAAG TGGGTAAAC TTCGCCAGAA GAGGAGGAA CGGCTGAGAA CCGAAACGTC	8040
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CTGTAACTC CCTGAACCGC CTAACAATAC GAGAATCCCT ATGGTCGAAA AGAGGGCTGT	8280
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ATTGGCTTCC TTGATATGGA ATTGCAGGGT TTCGATTGG CCATTGGCTA GATGGTGCAT	8640
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TACAGCGATG CTTTtaggtg TGATGATACT TGAAAAATCA GCGCATTGA TAATCTCGAG	8760
GAGACTGGTA CGATTGACCT TAGTAATATT TTTCTGTACA CCTACCCTGT CAAGGAACAT	8820
AGATGTAATC AGATTTTCCT CATCGACTCC TGTtagagtc GCAACGGCAT CATAGTGTG	8880
AGCACTTTCT TCCAGCAGGA TATCTTTTGC GGTTCATCT CCTTGAACGA TGTAGAGATT	8940
TGGGAATTC TCGCTAAAGA AGCTGGCGAT TTCAGGATTG ATTTCAATGA CTTTGTATC	9000
GATACGACTA TCTTTGAGAA TACCAAGTAG ATAATAGGCA ATTCTACCTG CCCCACGAT	9060
GAGAAGGCTC TTCACGGCGC GTGATTTAAA ATAATTATGG AAGAGTATCA TATCGACACG	9120
GTTACCAGTG ACAAAGATTC TATCTTTATC CTGTACAGTC ATGTCAACGC TTGGAATGAT	9180
AATTTGATGA TCCCTCTCTA TCGCACAGAC AATGACATTA CCAAATTTT TACGAAAATC	9240
AGAAATGGGC ATTTGGCAAA GACCGCTGGT GGACTTGACG ACAAATCCA TGAGGCTAAC	9300
GCGTCCACCA GCAAAGCGTT CGACAGACAG GCGTTGGGG AAGTCAATGA TATTCGCGAT	9360
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CTTGAAATAA GAGTTAGAAT ATTCAGGGTT CCGCACCCGA ACGATAGTTT CTTTAGCTCC	9480
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AAGGATACCA ATGATATCAA AGCGACTGAC AATATGATTG AGAACAGCTT CGTCTTGCTC	9660
AATCAGCAAA ACATCATGCT TTTCTGCAAC CAAGGAGCGA CAGAGGGCAA AACCAACTTT	9720
TCCCCCTCCG ACAAGGATAA TTTTCATAAT AAAACCTACT TTTTCATGAT GTAACATCA	9780
TACCCTTTTT CAAGAAAAAA TGCACCTACT AGCTAATAAC AAGAGTTTTT AGTGAAAATT	9840
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ATCAGACTTT GGTCTGGTTG ATGGTGCGGT ATCGGCTATG ATTGGAGTGG CTTTGAAGA	10020
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TACTTTTGAG GAAGTAGGGC CAGAGCTCAG TGTGGAACAG ATTGTAGAGC TTCCAGTCGT	10440

552

AGCGACCATC ATAGAAGATC ATCTGGTGAA GGGAGCCATT GATATTCTGG ATGTGCGTTT	10500
CGGTTGCGTT TGGACCTCTA TCACACGGGA AGAATTTTAC AAGCTGGAAC CAGAATTTGG	10560
TGATCGTTTT GAAGTGACCA TCTATCATGC TGATATGCTG GTCTATCAAA ATCAGGTTGT	10620
CTATGGCAAA TCATTGTCAG ATGTGAGAAT TGGGCAACCs ATcTTTACrc TCAGCaTCTt	10680
CGATTAGCTG GGCAATTCGT TCTAGTTGGA TTTCGTCAAT CAAGGT	10726

(2) INFORMATION FOR SEQ ID NO: 67:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7163 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

TTATCTTTAA CGATATCAAT CAAGATCTGG TCAATAAAGG GATTGGGGCT TATCGTGAAG	60
TTGGCATCCA AGCCCCATGA TATGTCTGTG ACGTGACAGA CGAGGACGGT ATCCAAGCCA	120
TGGTCAAGCA AATCGAACAA GAGGTTGGTG TCATTGACAT CCTCGTTAAT AACGCTGGTA	180
TTATCCGCCG AGTTCCAATG TGCGAAATGA GCGCCGCTGA TTTCCGTAAG GTCATCGATA	240
TTGACTTAAA CGCACCATTT ATCGTTTCAA AGGCAGTTAT TCCTTCTATG ATAAAGAAAAG	300
GGCATGGAAA GATTATCAAT ATTTGTTTGA TGATGAGCGA ACTGGGACGT GAAACAGTTA	360
GCGCTTATGC TGCTGCTAAA GGGGGCTTGA AAATGTTGAC CCGCAACATT GCGTCTGAAT	420
ACGGTGGAGC CAATATCCAA TGTAACGGAA TTGGACCGGG TTATATTGCC ACTCCTCAAA	480
CAGCACCTCT TCGTGAATTG CAAGAAGATG GTTCTCGCCA CCCATTTGAC CAGTTCATCA	540
TTGCAAAAAC ACCTGCTGCA CGTTGGGGAA ATACTGAAGA TTTGATGGGC CCTGCTGTCT	600
TTCTCGCTAG TGATGCCAGC AATTTTGTCA ATGGCCACAT CCTATATGTA GATGGCGGTA	660
TCTTAGCCTA CATCGGAAAA CAACCTGAGT AAAAATAGAA AGAAGATCTT ATGAAAATCG	720
CATTAATCAA TGAAAATAGT CAAGCTAGCA AGAATCACAT TATTTACGAT AGTCTAAAAG	780
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AAAGTCAATT AACTTATGTG CAGAACGGAC TAATGGCTGC CATCCTTTTA AATACAAAGG	900
CAGTTGACTT TGTGTTTACC GGCTGTGGTA CGGGTGTAGG GGCTATGCTT GCTTTAAACA	960
GCTTCCCTGG TGTTGTCTGT GGTCTAGCAG TGGACCCAAC TGACGCTTAC CTTTATTCTC	1020
AAATCAATGG TGGTAACGCC TTGTCTATCC CTTATGCCAA AGGATTGGC TGGGGGGCAG	1080
AACTGACCCT CAAATTGATG TTTGAACGCT TATTTGCTGA AGAAATGGGC GGTGGCTACC	1140

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CTGGTGCCT TTACCAACTA CTCCATCATT CCTCCCTAAA AACTACCATT GACTTTGCAG	2280
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CAAAGGAAGA AGGACTACAA GCCTCGATTG CTTGTATCAA GGGCGGTATC AAAGCTATTG	2520
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GTGGCGAACT CAATAAACTC GCTTCCCAAG GCAACTTTGA CCGCATCAGC GAGATTGCCC	3000
AACAGTATAT TACACTCAGA TAAATCATA ACTACCCGTC TAACGGGTGG TTTATCTCAG	3060
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GGGGTGAACA CAATATGATA GAACACCTCC ACTTTGTGTA TGATAAACTA TGAGTCTTTT	3780
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AAATGCCCCA AGTAGCAAGA ACCCTAGACT TGCCAAGATT GACTGACCTT CTCCTGTCTG	4260
AGGGAGATTC TTTTGATCCG AATGGTTCTT TTCCTCTTCA GATTTTTCCT TTTCTTTTGA	4320
ATTCTGTACT TGTGGCTGAG CTGCTTGCTC TAGCTTTTAA AAGACTTCCT GATCTGGAGC	4380
TGATTCCTGG GTTTCAGGAT TATAGTAGGC AATCTTATAT TCATCCCTT CTTTTCGAAT	4440
GGTATAGACT CCACGTTTCA AAACCTGGAA TTGGTTGGAA ATAGTAGAGA CAGAATCATC	4500
ATATTTTACA ATGCCCCAAA CTCCTTGTTT AGCATCATAA ACAGACTGAA GGGTTTCGTT	4560
ATTTTCGATG AGGCTACTTT CTAACCTTTT TATCATTTGA TTGAAGGTGG CACGATCCAC	4620
GTTAGGAATG AGCATATAGC CATAAGAATC TCTATTTTGC TTATGAGCCT GACTAATCGT	4680

555

AAGAAATTCA TTTTCAACTT CCTTGTCTGA CTGTCCTTCA TTGATATCCT TCCAGGCTCC	4740
CTTTTGCAAA GCCTTACTCA TACTGATTGA ACTCTTCTTA AAGAAAAAGT AACCAATATT	4800
CTTTTTCGAA TCGAACGATT CTAAAAAGAC ACTTTGGGTT TCAGGATAAT CCTTTTCTTG	4860
TTCTGTAAGG GAGGCTTCTT TATCATTGAC ATAGACTTTA TATGGATTAC CTGATTCCAG	4920
TTTCTCTGCG TCAATGTAG TTGCAGCAGT ATCTGTTGAA GTGTTTGGGA TATTGCTTCC	4980
TAAAAAGGCG ATCTTATCCT TTAGCATAAA CCAGCTCTTA TGAGCAGTCA ATGTTTGATT	5040
CCAGTTGGTG AAATCCATGG TTGCTGTGCG ATTGGCATCA TCTAGTTTGC TCGTTCCAAC	5100
GAAAGCAGAC GGTAAACTT TACCTGTATC GCTATCCGCT CTCTTAGCAT CCGTCTCTGT	5160
TGTACCAGGC ATCTTATATG GATTAACTGT TGGCCAGTAG CCATCGCTAT AGTGACTCAA	5220
ATCGCCATTG TAAAGATAGA ACATCCCATC ACTCGTATAC CAACCACGTT TATTTTCTTT	5280
GTTCATGTGT TCGTAATTCA AGGTACGACT GGAAAAGAGT GACAAGCCAA ATCCAAACCC	5340
TTTCTCTGCA TTGTACATGG CTGTTTATC CATCTTGTTA AAGGCAGATA GGTAACCTGG	5400
TCTTGGAACA CTGCGACTC CTGCATCACT TAACAAGGAT TGCATCAAAC TGATATCCTT	5460
ATAAGTCTTC AAATTCTTAA AGACATCATA ATAACATATC GATTGAACAA TGGTCTTCAC	5520
AAGACTCTGC AAACATTGTT TGGTTTCTCC TTCAGACATA TCCGCTATTC GGTGAATCCC	5580
TCTTAGTACT TCTACTGCGG CCACGTGCCC CTCGCTATTT GCACGACTGA TCGAGCGTCC	5640
ACGACTCATA TCCATCAACT CTCCATTAC CAGCAAAGGA GCAAACGATT TATCAATCCA	5700
GTGGTACATG GTTTGCATTT TATCTTTATC GATTGGATTG TTGGTCTTTT GAATGACTGG	5760
CAACAGTTGA GACAGGCCAT CAATCAAAC ATTCCCATAA GCACCCGTAT AGGCAACATT	5820
GGTGTGGTCG ATATAGGATC CATCTTGATA AAAACCTTCA CCTTGGTCTA CCAACTTGAA	5880
CACCTGCTCA ATCGAGCGAA TGGTAGAAGA AATTTCTTGA TCATCCTTAC GCAGTAAACC	5940
AGCTATTACT TTTACCTTTC CCATATCAAC TAAGTTTCCA CCTAGAGCCT TGAATGGGTT	6000
ATCAGTCGTC TTTTCGAAAT GTTCGGGATC TGGTACAAAT TTTTCAATCA CATCTGTATA	6060
TTTTTTAATT TCCTCATCAG AGAAGTATTC TTTTCATCAGA GACAAGGTAT TGTTGATGGC	6120
ACGAGGTGTA CCGATTTTAT AATCCACCA GTTCCCAACA ATGCTCTTTT CACTATTGTA	6180
GACATGTTTA TGCATCCATT CCATGGAATC CCTGACTGTT CGAACGACAG TTTTCATCTG	6240
ATAATAACGA GAAGAAGGAT TGGTCACTTG CTTGGCCATC TCCTCCAATT TCCGATAAGT	6300
GGCAGTCAGA TTTGCAGACG TTTTATAATT TGAAAATTTT TCCACAAAT AGGTGCGGTC	6360
CGCCTGACTT GAAATACTGG ATAGGCTATC AGCTACCTTT CCTTCCAATT CCTGGTTTAA	6420

556

TTTGCCATC TGTTCAATTT TAGAATCATA GTATTGATTC CCAGCGATGA TGCCATTCCA	6480
GTCATCCAAA CGGTCTGTGT ATGCATCCTT AACAGAGGCC AGAATCTTCA AAGGAATCTT	6540
TTTCACTTCC TTGCCATCTT TACTGACAAT GACATTGGTT GTCCCTTCCT TAAGAGGTTC	6600
TAAAATTCCA TTTTGTACTG AAGCAACGTC AGGATTTTCT ACCTTATAAG TATAGTCCGC	6660
AAGAGAAAAA ACATGTTTTT TTCCAATTGG TAAATCAATC TTTTCCTCAA GCTGTTTATC	6720
TGTTTGAGAA TCCTCAGAAA GCTGGTCTGC TACCTCTACC AGCTCAATAT CCTTAAAGGA	6780
AACAGTCCCA GTTCCTGTTT CATAGAATAA CTCCAGCTTG ATTTTATCAA CATCTAAAGT	6840
CGGGCTATAG TCTGCTTCAA TGGTCTGCCA GTCCITTGTT CCTGACGTCG TTGCAGAATT	6900
CCACAATCGC TTGTCTTAC CACTTTCCTC AATGATACGA ACTTGGCAA TCCCGATTTT	6960
ATTATCTGTT TTAATCTTGA AACGCAGTTT ATACTTTTTC TTAGCTTCAA TAGGAACCAT	7020
ACGGTGAAGC GCTGCCCTTA ATTTCTCATG GCTTGAGATA GTGATAGCCC CATCCTTAGC	7080
CTCAATGACT CGAGTTGAGG CATCTGCACT ATTCTTCTGG TCTACCCAAG CTGACCACCC	7140
CCTGAGCTTT GCTTCTGTC CGG	7163

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9244 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

CGTTATAACA TACATGTAAG CGGTACCCAA AATGGTGCCA AGTCAAAATT TTAAAGGAGG	60
AAAATACATG TCTTCACATC CAATTCAGGT CTTCTCAGAA ATTGGGAAAC TGAAAAAAGT	120
TATGTTGCAC CGTCCAGGCA AGGAGTTAGA AAACTTGTTG CCGGACTATC TTGAAAGGCT	180
TCTTTTGGAT GATATTCCTT TCTTGGAAGA TGCTCAAAAA GAACATGATG CATTTGCCCA	240
AGCTCTTCGC GATGAAGGAA TTGAGGTTCT CTACCTAGAA CAACTCGCTG CTGAATCATT	300
GACCTCTCCA GAAATCCGCG ATCAATTTAT CGAGGAATAC TTAGACGAAG CCAACATCCG	360
TGATCGTCAA ACCAAGGTTG CTATTTCGTGA ATTGCTTCAC GGCATCAAGG ACAACCAAGA	420
ATTGGTTGAA AAAACAATGG CTGGGATTCA AAAAGTTGAA TTGCCAGAAA TTCCTGACGA	480
AGCTAAAGAT CTAAGTACT TAGTTGAATC AGAGTATCCA TTTGCAATG ACCCGATGCC	540
AAACCTCTAT TTCCTCGCG ACCCATTTGC AACCAATTGGA AACGCCGTAT CGCTTAACCA	600
CATGTTTGCA GAACTCGTA ACCGTGAAAC ACTCTACGGT AAGTATATCT TCAAATACCA	660

557

CCCAATCTAT GCGGAAAAG TGGATTGGT CTACAACCGT GAAGAAGATA CGCGTATCGA	720
AGGTGGAGAC GAGTTAGTTC TTTCTAAAGA CGTCCTTGCA GTAGGTATCT CTCAACGTAC	780
AGACGCAGCT TCTATCGAAA AACTTTTGGT CAACATCTTC AAGAAAAATG TTGGCTTCAA	840
GAAAGTTTGG GCCTTTGAAT TTGCTAACAA CCGTAAATTC ATGCACTTGG ATACTGTCTT	900
CACTATGGTA GACTATGACA AGTTCACAT TCAACCAGAA ATCGAAGGCG ACCTTCACGT	960
TTACTCAGTT ACTTACGAAA ACGAAAAACT TAAAATCGTT GAAGAGAAAG GTGACTTAGC	1020
TGAAC TTCTT GCTCAAAACC TTGGTGTAGA AAAAGTTCAT TTGATTCGTT GCGGTGGTGG	1080
CAATATCGTA GCAGCTGCGC GTGAACAATG GAACGACGGT TCTAACACTT TGACCATCGC	1140
ACCTGGTGTG GTAGTTGTTT ATGACCGCAA TACCGTGACC AATAAGATTG TGAAGAATA	1200
CGGGCTTCGC TTGATTAAGA TTCGCGGAAG TGAATTGGTT CGGGGCCGTG GTGGACCTCG	1260
TTGTATGTCT ATGCCATTG AACGTGAAGA AGTGTAATCG CTGTTTCGATA TTCGTCAATA	1320
GAAATGTAA AAAATAGAAA GAGGAAATAA TAAATGACA AATTCAGTAT TCCAAGGACG	1380
CAGCTTCTTA GCAGAAAAG ACTTTACCCG TGCAGAGTTA GAATACCTTA TTGGTCTTTC	1440
AGCTCACTTG AAAGATTTGA AAAACGCAA TATTCAACAC CACTACCTTG CTGGCAAGAA	1500
TATCGCTCTC CTATTGAAA AAACATCTAC TCGTACTCGT GCAGCCTTA CAACTGCGGC	1560
TATCGACCTT GGTGCTCACC CAGAATACCT CGGAGCAAT GATATTCAGT TGGGTAAAAA	1620
AGAATCTACT GAAGATACTG CTAAAGTATT GGGACGTATG TTTGACGGGA TTGAATCCG	1680
CGGATTCAGC CAACGTATGG TTGAAGAATT GGCAGAATTC TCAGGCGTTC CAGTATGGAA	1740
CGGTCTAACT GACGAATGGC ACCCAACTCA AATGCTCGCT GACTACTTGA CTGTTCAAGA	1800
AAACTTCGGT CGCTTGGAAG GCTTGACATT GGTATACTGT GGTGATGGAC GTAACAACGT	1860
TGCCAACAGC TTGCTCGTAA CAGGTGCTAT CCTTGGTGTC AATGTTTACA TCTTCTCACC	1920
AAAAGAACTC TTCCAGAAA AAGAAATCGT TGAATTGGCA GAAGGATTTG CTAAGAAAAG	1980
TGGCGCACAT GTTCTCATCA CTGAAGATGC TGATGAAGCA GTTAAAGATG CAGACGTTCT	2040
TTACACAGAC GTTTGGGTAT CAATGGGTGA AGAAGACAAA TTCGCAGAAC GTGTAGCTCT	2100
TCTTAAACCT TACCAAGTCA ATATGGACTT AGTTAAAAA GCAGGCAATG AAAACTTGAT	2160
CTTCCTACAC TGCTTGCCAG CATTCCACGA TACTCACACT GTTTATGGTA AAGACGTTGC	2220
TGAAAAATTT GGTGTAGAAG AAATGGAAGT AACAGACGAA GTCTTCCGCA GCAAGTACGC	2280
TCGCCACTTC GATCAAGCAG AAAACCGTAT GCACACTATC AAAGCTGTTA TGGCTGCTAC	2340
ACTTGGTAAC CTTTATATTC CTAAAGTATA ATTTTAGATA ATAAACCGTC TACCAACAGC	2400

558

TATGAGGGCT GCGACTAATA GCTTTAGTCC GGTCTCTCTT TATGTAATGG TAATCTATTA	2460
TTTCTTATAA AATATGTGAA AAATCATTAA ATTGAAATCT AAACGCATTC TATTGAGTGT	2520
GATAAAGGAG AATTTATGGC AAATCGTAAA ATTGTAGTAG CTTTGGGAGG AAATGCGATT	2580
CTTTCTTCTG ACCCATCAGC AAAGGCTCAA CAAGAAGCTT TAGTTGAAAC AGCTAAGCAT	2640
CTTGTAATAA TGATTAAAAA TGGAGATGAT CTGATTATCA CTCACGGTAA TGGACCTCAA	2700
GTTGGGAATC TCTTGCTCCA ACATTTGGCA TCAGACTCTG AAAAGAACCC TGCCTTCCCA	2760
CTCGACTCAC TTGTCGCTAT GACAGAAGGT AGCATCGGTT TCTGGTTGAA AAATGCTTTG	2820
CAAAATGCTC TCTTGATGA AGGCATCGAA AAAAATGTTG CCTCTGTTGT AACGCAAGTT	2880
GTCGTAGATA AAAATGATCC AGCTTTTGT TACTTGAGTA AACCAATCGG TCCTTTCTAT	2940
TCAGAAGAAG AAGCAAAAGC AGAAGCCGAA AAAAGCGGAG CGACTTTCAA GGAAGATGCT	3000
GGCCGTGGCT GCGTAAGGT CGTTGCCTCA CCAAAACCTG TTGACATCAA AGAAATTGAA	3060
ACCATCCGTA CTCCTTTAAA TAATGGTCAA GTCGTCGTAG CTGCAGGTGG TGGCGGTATT	3120
CCCGTCGTCA AAGAAAACAA TGGACATTTG ACTGGTGTCTG AAGCGGTTAT TGATAAAGAC	3180
TTGCTTCCC AACCTTTGGC AGAATTGGTT GATGCAGACC TCTTCATCGT TTTGACAGGT	3240
GTAGATTATG TATTTGTTAA CTACAACAAG CCAAACCAGG AAAAATTGGA ACATGTGAAT	3300
GTTGCCCAGC TGGAAGAATA TATCAACAA GATCAGTTTG CACCAGGTAG CATGCTTCCA	3360
AAAGTAGAAG CAGCTATCGC TTTTGTCAAT GGTCTGCCAG AAGGAAAAGC AGTTATTACT	3420
TCCCTTGAAA ATCTAGGCGC CTTGATTGAA TCTGAAAGCG GAACAATTAT TGAAAAAGGA	3480
TAAGTTGTTT TACTAATAAG ATGTATTCTA TTTCTAGTAT CTTTATATCA AATTAGAAAT	3540
TATCTTGAA AACATGTACA ATATTTCAA AGATACTAGT TTTAGACTTT AATATGGTAA	3600
AACAAATATA AATAGAAAGC GTTTTCTTGA ATGTTTATTT AAGAAAGTAG TTGGTTTTTT	3660
ACACTTTGTT AGACATCAGG AGGAAAAACA AATGAGTGAA AAAGCTAAAA AAGGGTTTAA	3720
GATGCCTTCA TCTTACACCG TATTATTGAT AATCATTGCT ATTATGGCAG TGCTAACTTG	3780
GTTTATCCCT GCGGGGGCCT TTATAGAAGG TATTTACGAG ACTCAGCCTC AAAATCCACA	3840
AGGGATTTCG GATGTCCTCA TGGCACCAGT TCGGGCTATG CTAGGTACTC ATCCAGAGGA	3900
AGGTTGCTC ATTAAGAAA CGAGCGCAGC GATTGATGTA GCCTTCTTCA TCCTTATGGT	3960
TGGTGGTTTC CTTGGCATTG TCAACAAAAC TGGTGCTCTT GACGTAGGGA TTGCCTCTAT	4020
CGTGAAGAAG TATAAGGCC GCGAAAAAAT GTTAATTTTG GACTGATGC CTTTGTTTGC	4080
CCTCGGTGGT ACAACTTATG GTATGGGTGA AGAAACAATG GCCTTCTATC CACTCCTTGT	4140
GCCAGTTATG ATGGCCGTTG GTTTTGATAG CTGACTGGT GTTGCAATTA TTTTGCTCGG	4200

559

TTCTCAAATC GGCTGTTTGG CATCTACTCT GAATCCATTT GCGACAGGTA TTGCTTCAGC	4260
GACTGCGGGA GTTGGTACAG GGGACGGTAT CGTACTTCGT CTGATCTTCT GGGTTACCTT	4320
GACTGCTCTT AGTACTTGGT TTGTTTACCG TTATGCGGAT AAGATTCAAA AAGATCCGAC	4380
TAAGTCACTG GTTTATAGTA CTCGCAAAGA AGATTGAAA CACTTTAACG TAGAAGAATC	4440
TTCATCTGTA GAATCTACAC TTAGCAGCAA ACAAAAATCA GTTCTCTTCT TATTTGTGTT	4500
GACATTCATC TTGATGGTAT TGAGCTTCAT TCCATGGACA GACCTTGGCG TTACCATTTT	4560
TGATGACTTT AATACTTGGT TGACTGGTCT TCCAGTTATT GGTAATATTG TCGGTTTCATC	4620
TACTTCTGCA CTAGGTACTT GGTACTTCCC AGAAGGCGCA ATGCTCTTGT CCTTTATGGG	4680
TATCCTGATT GGTGTTATTT ATGGTCTTAA AGAAGATAAG ATTATCTCTT CCTTCATGAA	4740
TGGTGCTGCT GACTTGCTCA GTGTTGCCCTT GATCGTAGCG ATTGCTCGTG GTATTCAAGT	4800
TATCATGAAC GACGGTATGA TTACCGATAC AATCCTCAAC TGGGGTAAAG AAGGCTTGAG	4860
CGGTCTATCT TCACAAGTCT TTATCGTTGT AACTTATATC TTCTATCTAC CTATGTCATT	4920
CTTGATCCCA TCTTCATCTG GTCTTGCCAG CGCAACTATG GGTATCATGG CTCCACTTGG	4980
AGAAATTGTA AATGTCCTGTC CTAGCTTGAT TATCACTGCT TACCAATCTG CTTCAGGTGT	5040
CTTGAACTTG ATTGCACCAA CATCTGGTAT TGTGATGGGA GCTCTTGACAC TTGGACGTAT	5100
CAACATTGGT ACTTGSTGGA AATTTCATGGG CAAACTCGTA GTCGCTATTA TTGTAGTGAC	5160
CATCGCCCTT CTTCTCCTTG GAACCTTCCT TCCATTCCCTA TAAAATAGTG AGTGAGGTGA	5220
TTCCATGAAA ATAGATATAA CAAATCAAGT TAAAGATGAA TTTCTTATAT CATTA AAAAC	5280
CTTGATTTC TATCCTTCAG TACTCAATGA AGGAGAAAAT GGAACACCTT TTGGACAAGC	5340
AATCCAAGAT GTCCTAGAAA AAACCTTTAGA GATTTGTCGA GACATAGGTT TCACTACCTA	5400
TCTTGACCCT AAAGGTTATT ACGGATATGC AGAAATCGGT CAGGGAGCAG AGCTTCTGGC	5460
CATTCTCTGT CATTGGATG TTGTTCCATC AGGTGATGAA GCAGATTGGC AGACACCGCC	5520
ATTTGAAGCA ACTATCAAAAG ACGGCTGGGT ATTTCGGACGT GGTGTCCAAG ATGATAAAGG	5580
CCCTTCGCTC GCAGCTCTCT ATGCAGTAAA AAGCTTGCTG GACCAAGGTA TTCAGTTCAA	5640
AAAGCGCGTA CGCTTTATCT TTGGTACCGA TGAGGAAACC CTCTGGCGCT GCATGGCAGC	5700
CTACAATACC ATCGAAGAAC AGGCCAGTAT GGGCTTTGCA CCTGACTCAT CTTTTCCTCT	5760
GACCTATGCT GAAAAGGGC TTCTACAGGT CAAACTTCAT GGCCCTGGAT CGGATCAACT	5820
AGAGCTTGAA GTAGGAGGCG CCTTTAACGT TGTACCAGAC AAGGCCAACT ACCAAGGTCT	5880
CCTCTATGAA CAGGTTTGTA ACGGTCTCAA AGAAGCTGGT TATGATTACC AAACCACTGA	5940

560

ACAAACCGTA	ACGGTTCTCG	GAGTGCCAAA	GCATGCTAAG	GATGCTAGTC	AAGGTATCAA	6000
TGCTGTCAATC	CGACTAGCTA	CCATTCTTGC	TCCTCTCCAA	GAACACCCTG	CTCTCAGTTT	6060
TCTTGCAACA	CAAGCAGGTC	AAGACGGCAC	AGGAAGACAA	ATCTTTGGTG	ATATAGCAGA	6120
TGAACCTTCT	GGTCACCTAT	CCTTTAATGT	CGCAGGTCTC	ATGATCAATC	ATGAACGTTT	6180
TGAAATCCGT	ATTGACATTC	GGACTCCTGT	CTTAGCTGAC	AAGGAAGAAC	TAGTAGAGTT	6240
GCTTACAAGA	TGTGCACAAA	ACTACCAACT	CCGCTACGAA	GAGTTTGACT	ATCTAGCGCC	6300
TCTATACGTC	GCAGAAGACA	GTAACCTCGT	TAGCACACTG	ATGCAAATCT	ACCAAGAAAA	6360
GACTGGCGAT	AACAGTCCTG	CTATTTTCATC	CGGTGGTGCC	ACTTTTGCTC	GCACCATGCC	6420
AAATTGTGTA	GCCTTCGGCG	CCTTATPCCC	AGGAGCGAAG	CAGACAGAAC	ATCAGGCAAA	6480
TGAATGTGCC	GTTCTAGAAG	ATTTGTACCG	TGCTATGGAT	ATTTATGCCG	AAGCCGTCTA	6540
TCGACTTGCA	ACTTAATCAG	GCAACTGTTT	CTACCAAAAA	AAATCGACCG	ATTAATGAAC	6600
TGCACCCCAA	AAGTTAGACA	GAATAAATCT	AACTTTTGGG	GTGTTTATT	ATGAAATTGA	6660
GTTATGAAGA	TAAAGTTCAG	ATCTATGAAC	TAAGAAAGCA	AGGACAAAGC	TTCAAACAGC	6720
TTTCAAAAAG	ATTGGGTGTG	GATGTTTCTG	GTCTAAAGTC	ATCTGAATCT	TTGAGATGAG	6780
CTTTATAAAT	CGCTTTTTTC	AGTTTTTGCA	CTGGTGTTTC	GATAAACTCA	AACTTTTTAG	6840
CCGTGGTATT	GCCTGATTTT	ATAGTATATT	GAAACTAGAA	TAGTACACCT	CTCCTTCTAA	6900
AACATTTTTA	GAAATCGATT	TGACTGTCCT	GATCGATTG	TCCTGTTCTT	ATTTTCATTT	6960
ACTATATTTG	AGCCACTTCG	TCTTTAACGG	CTTTATTCAT	AAGCTCTTGT	AATTTTCTTT	7020
TACTATCAAT	TACTTCTGAT	TTTCCGTTGT	AATTTATTGT	AATAGGTTTT	AACTTACCTA	7080
ATTTCTCGAC	ACGCTCATT	ATTTGATCTT	TTTTGAAGGC	TGCTTATGTT	TTTCTAAGA	7140
TTTTTTCAAA	AATATATTTA	TCAGATAGCG	GTTTGCTTTC	TTCTTCAGCT	TGGTTTTTGT	7200
ATTAATTTGA	AACATAAGGA	ACAAATCCTT	CATAGTAACC	TAATGCTCCC	ATAAGTCAA	7260
AAGCTTGTTT	TCTAATTCAA	ACCATTGCAA	CTCAGATTTT	AGCTTTTCAG	ATAAATCCTG	7320
CTCATCCAAA	TAATGACTTG	AAATTAGTGC	TGAACTCGTT	TCTGTATCCT	GTACAGGCTG	7380
AGCACCCATA	CCAGCAAAAA	ATAAACTCGT	TCCTAGCAAG	ACCGAACAAG	CTCCTATTGC	7440
ATATGGCCTC	AAAGAAAAAC	GCTGCTTTCT	CTCAAATTGA	AATTCTTTCA	TCCCATCTCC	7500
CATCATTCAT	TATTACTGTA	TATTTTGAT	ATCAGAAATA	GTTTGATTC	ACAAATCTTT	7560
CTAGTTATTC	CCTTATCATT	CCTAATTAAG	GGAGATAACA	TACAATAATT	TTTAGTTAAA	7620
TGTATATCGA	TGTTTTTTGT	TTTCTTAAT	AAACGCAATA	CAAAAAGAGC	CTGTTACCAA	7680
GCTCTTTGTA	CTCAATGAAA	ATCAAAGAGC	AAATTAGGAA	ACTAGCCACA	GTTTGCTCAA	7740

561

AACACCGTTT TGAGGTGCA GATAGAACTG ACGAAGTCAG CTCAAAACAC TGTTTTGAGG	7800
TTGCAGATAG AACTGACGAA GTCAGTAACA TCTATACGGC AAGGCGACGC TGACGTGGTT	7860
TGAAGAGATT TTCGAAGAGT ATTAGTCTAT TATTTCTTCT CAGCGCGAAG GGCTGACAAG	7920
ATTTGTGTTC GGATATCATC CACACCATTG GGAGTATTTG GTAAAAAGAT AGTTTGATTG	7980
CCTTTAGAGG CAAAGGTATT CAAGGTATCC AAATACTGGT TGGTCAAGAG GATAGACATG	8040
ATTTGTTCTT CTGTCATGCC AACATTGGCT TCCTTGAGTT CGGTGATAGA CTCTGCCAAT	8100
CCATCCACAA TCGCCTTACG TTGTTGGGCA ATCCCCACAC CATGAAGGCG GTCTTTTCT	8160
GCTTCTGCTT CAGCTGCAGT GACAATTTTA ATCTTGTCAG CTTCGCCAA TTCTTGCT	8220
GCGACCCGCT TACGTTGCGC CGCATTGATT TCATTCATGG ATTGCTTAAC TTCTGCATCT	8280
GGTTCGACCT TGGTAATCAA GGTTTTCACG ATAATGTAGC CGTAAGTGGT CATTTCTTCT	8340
GCTACTTGGT GTTGAACCTC AAGGGCAATC TCATCTTTT TCTCAAACAA TTCATCCAAG	8400
GTTAATTTTG GAACAGAAGA GCGAAGAGCA TCTTCGATAT AAGATTTAAT CTGAGATTCT	8460
GGACGTATGA GTTTATAGTA AGCATCTGTC ACGCTCTGCT CGTTGACACG GTACTGAGTC	8520
GCTACATTCA TCATAACGAA CACATGTGCC TTGGTCTTAG TCTCAACCAC AATATCACTT	8580
TGCAACAAGC GCAACTGAAT CCGTGCTGCA ATCGAGTCAA TCCCAAAAGG CAAGCGAATA	8640
TGAATACCGC TATTAGCAAC CTTTGGTAT TTCCCAAAGC GTTCAATAAT CGCCACCGAC	8700
TGCTGACGAA CCACATAAAC TGTACTCAGT GTGACTATCA CCAATAGGAG CACACAAACA	8760
ATCAGAAAAA TCATGAAAAA TATTGCCATA ATGGAACCTC CACAAGTATT TTTCTAGTAT	8820
TATAGCACAT TTAAGAAGG CTGTGCCGTT TTTACTGCGA TTTTCCTGA AATGTCAATA	8880
ATTAGAGGTG AATTGTCCTA TTGTCGTCCA ATCTCTTGCT AAAATAACTC TTTATAAAG	8940
GCAATCGTTT CTTCTAAGGT TGGCATAAAT GGATTTCTTG GTGCGCAGGC ATCAATCAAG	9000
GCATTCTTAG AAAGGTATTC AAAGTCGAAA TCTTTTCTT CAATACCAAG TTCAGTCAGT	9060
TTCTTAGGAA TACCTACTGT CTCAGAAAGC TTCTCAATCT CAGCAATCGC ATAATCGGCA	9120
CATTCTTGAT CTGATTTACC TTCTACATGA AGTCCCAAGG CTTTGGCAAC ATTGCGGAAA	9180
GCTTCTGGTA CACGTTTAGC ATTTTCACGT TCTATAACTG GTAGCAACAT GGCACAGCAC	9240
ACGG	9244

(2) INFORMATION FOR SEQ ID NO: 69:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 8898 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

562

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

GATCTGA	ACT	TTATCAT	CAT	AAC	TTA	ATT	CATAA	TAAA	ACAC	CCCA	AAA	AGTTAG	ATT	60
TTTCTG	TCTA	ACTTT	TGGG	TGTAG	TCAG	TCAT	TGG	ACT	GAC	GTTTT	TTT	TGTATG	CTTA	120
TTTTG	ATTG	ATGTAG	TTGA	TACCAT	CTGC	TTTTG	GTGC	ACTG	CTTT	TC	CAAAGA	AAGGC	180	
TGCTA	AGACA	AGAAT	TGTCA	AAACATA	AGG	TGCA	ATTTGA	AGATAA	ACCG	CTGG	CACTCC	240		
TTGTAG	GAAC	GC	CAATTGAG	AACCGATA	AC	AGCCAA	ACTT	TGTGAA	AGTC	CAAAGA	AAGAG	300		
ACTAGAA	AGC	ATAGCA	CCGA	TTGGAT	TCCA	TTTCC	CAAAG	ATCAT	CGCAG	CAAGG	GCGAT	360		
AAATCC	AGGT	CCAACA	ATAG	TTGTCA	CTGA	GAAGT	TA	ACT	GAGAT	TGATT	GCGCATA	420		
CGCTCC	GCCA	ATTCC	ACCTA	GAAA	ACCTGA	AATAA	TAA	ACC	CCTAA	AATC	TCATCT	TGTA	480	
GACGTT	GATT	CCCAAG	GTAT	CCGCTG	CTTG	AGGAT	GTTCA	CCGAC	AGAGC	GGAG	ACGAAG	540		
ACCAA	ATTGA	GTCTT	AAAGA	GAATAA	ACCA	AGCA	AGGAAT	GAGA	AGGCAA	TCGC	CAGATA	600		
ACCAAG	TAGA	CTAGTT	GACT	TGAAGA	AGAT	ATCACA	ATC	ACTGG	GATAT	TTGCCA	AGAC	660		
TGGGA	AATCA	AAGCGT	C	CAA	AGT	TGACT	TAGGT	TGTCG	GTTTGT	CCTT	TGTTATA	720		
AACTT	TAACT	AAGAAA	ACAG	CCAAGG	CAGG	CGCCAT	CAAG	TTCAAT	ACCG	TACCG	CTGAC	780		
AACATG	GTCT	GCACG	GAAAT	GAACG	T	CGC	TGCTG	CGTGG	ATGATAG	AGA	AAACACT	840		
AACCA	ATCCT	GCTACA	AGCA	AGGATAG	CCA	TGGAGT	TGCT	GCTCCA	AAT	GTTCTG	CAAA	900		
TTCAAG	GTTA	AAGACA	ACTC	CAGAAA	AGGC	ACCCATA	AACC	ATAAT	TCCTT	CAAGG	CCAAC	960		
GTTTAC	CACA	CCACC	ACGTT	CAGAGAAA	AC	ACCACCG	ATA	CTTGTA	AAGA	TGAGAG	GTGC	1020		
TGAGTAA	ATC	AGCATAG	AAG	ACACCA	AGAG	GGGGAG	CAAG	GTTATA	AATAG	ACATCT	TTAC	1080		
TTACCT	CCTT	TAAC	TTGTTT	TTTCG	TTTG	ACAAAG	CGTT	CGATA	AAGGTA	ATGAAC	ACTG	1140		
ACAAAG	AAGA	TAATAG	ACGC	TGTTACA	ATG	CTGACA	AGCT	CAGATG	GTAC	CTGCC	CGCA	1200		
TTCAT	ACCAG	GAGCC	CAAC	TTGGAGA	ACG	CCAAATAG	GA	AGGCTG	CAAA	GAGTAT	ACCA	1260		
ATTG	TGAGT	TGGCCG	CAAG	CAA	ACTAACC	GCCATT	CCGT	TAAAT	CCGAT	AGCTA	ATGAC	1320		
GAACCT	TGAA	CATAG	ACGTT	CTGGA	AGGTT	CCCAA	ACCTT	CAACAG	CTCC	ACCAAG	ACCT	1380		
GCCAAG	GCAC	CTGAA	ATAAT	CATAGAT	AGG	ATAATAG	TCC	GCTTGG	CAGA	AATACC	AGCA	1440		
TATTCT	GAAAG	CATGTG	GATT	AAGACCA	ACT	GCACG	GATT	CAAAAC	CAAG	AGTTG	TTTC	1500		
TTGAG	CATGA	ACCAAA	TAAAC	TGCAAC	GCA	ATGATG	GCAA	AGAAA	AATACC	AATAT	CATC	1560		
CGTGAG	TAC	CAGTCA	ACTC	AGCCA	ACCAA	GGTGT	CTGAT	AGGTG	CATT	AGCCCA	ACA	1620		

563

CGAATGGTCG AATCTGTACT TTGCATGAAG TCTTTAGGGA AAGCATGGAT AAAGGCATTC	1680
CCTACATACA AGACAATGTA GTTCATCATG ATGGTTACAA TAACCTCTGA CGTCCCTAGA	1740
TAGGCCCTAA GAATACCTGG AATCGCTCCG ACAATCCAC CAGCAATCAA GGCAATCACG	1800
ATGGTTGCTA GAATCATCAA GGGACGGGGC ATATCTGGAT GCGACAGGGC AAACCAACCA	1860
CTGAGAATCC AACCTGCCAA AGCCTGACCA GGAAGTCCGA CGTTAAAGAA ACCAGCTCGA	1920
CTGGCAACGG CAAAACCAAG ACCAATCAAG ACCAGAGGAC CCATAGCACG GAAGATTCT	1980
CCAATCCAC GCAGACTGCC AAAGGCTGTA TAGAACAATT CTTCGTAGCC CCAAATAGCA	2040
TCATAACCGA AGATCCACAT GACAAATGGCT CCGAGTAAAA TTCCTAGGAA TACAGAAATC	2100
AAGGGAACCG AAATTTGTTG TAATTTTTTA GACATCACTC TTCTCCTTTC CCAAGTTTCC	2160
ACCAGCCATC AAGACACCAA GTTCTTGTTT ATGGTTGTT TCTGGTGATA CAATACCTTG	2220
AATCTTACCA TCGTGGATAA CGGCAATACG GTCTGAGACG TTTAAAATCT CATCCAATTC	2280
AAAGCTGACA ACAAGGACAG CCTTGCCATT ATCAGCTCT TCAATCAAGC GTTTGTGGAT	2340
ATACTCAATG GCACCGACAT CCAACCCACG AGTTGGCTGG CTAACGATAA GGAGATCAGG	2400
ATCTCGATCA ATTTACGAG CAATAATTGC TTTTGTGTA TTCTCCTCTG AGAGTGCAGC	2460
TGCAGGAAT AATTCCTGG CAGCGCGAAC ATCAAATCT TCCATCAGCT TTTTAGCATA	2520
AGAAGTAATA TTTGAATAAT TCAAAATTCC ATTTTACTA TGTGGTTCTT TATAGTAGGT	2580
TTGAAGGGCA ATATTTTCAG ATATCATCAT TTCCAAAATC AAGCCATCAC GGTGACGGTC	2640
TTCTGGAACG TGCCCAACAC TTAGTTCTGT AATCTGACGT GGGTGCAAGC CTACAATTGA	2700
ATCTCCTTTT AGCTCAATGC TACCAGATT CACCTTACGA AGACCTGTAA TGGCTTGAAT	2760
CAGTTCAGAC TGACCATTTT CATCAATCCC CGCAATACCA ACAATCTCTC CAGCACGAAC	2820
ATCCAAGGAC AGATTTTTAA CAGCTGGAAC ACCACGGTTT TCATTGACCA CCAAATCTTT	2880
GATAGACAAA ACCACTTCTT TTGGTTTAGA GGCTTGCTTC TCTGTTTAA AGGAAACAGA	2940
ACGTCCTACC ATCATTTCCG CCAAATCAGC ATGGGTAGCC CCGCAATTT CAACGGTTTC	3000
AATTGATTTT CCACGACGGA TAACTGTAAC ACGGTCAGAA ACTGCTCGAA TTTCATCCAA	3060
TTTGTGGGTA ATCAAGATAA TTGATTTTCC TTCTTTGACA AGATTTTCA TAATAGCCAT	3120
CAACTCATCA ATTTCTGATG GAGTCAAAAC AGCCGTTGGT TCGTCAAAGA TAAGGATATC	3180
AGCCCCCGA TAAAGTGTTC TTAATAATTC TACACGTTGT TGGGCTCCAA CTGAGATATC	3240
TGCTACCTTG GCAGAAGGGT CAACAGCTAA GCCATAACGT TCAGAAAGAG CCTTGATTTT	3300
TTTGCTAGCT CCAGCGATAT CTAGCACACC ATTTTGTAGT AATTCATAC CTAAAATGAT	3360

564

GTTTTAGCC	ACTGTGAAGG	CTTCAACCAA	CATAAAGTGC	TGGTGAACCA	TCCCGATTCC	3420
CAAGCTAGCT	GCTTTAGATG	GGGAGTCGAG	ATTGACAACT	TGACCGTTGA	CCGCGATTTC	3480
ACCACTAGTT	GGTTCAAGAA	GGCCTGCTAA	CATGTTTCATT	AGCGTGGACT	TACCAGCCCC	3540
ATTTTCTCCT	AAAAGTGCAT	GAATTTCACC	TTTTCGTAGG	TGCAAGTTGA	TTTGTGCGTT	3600
GGCAACAAAT	CCACCAAACA	CCTTGGTAAT	ATCACGCATC	TCAATGACAT	TTTCGTGTGC	3660
CATGTGCTCT	TCCTTTCAGA	GTCTTATTTT	ATTTCAATAA	AAC TTGCTAG	TTTGTCTAGT	3720
AGCAAGCTTT	ACTTAGACAA	AATGACTTTG	TCTCAACTCT	TAAAAAAGCG	GCCCTTGGCC	3780
GCTTCCTAAG	AAATGACTTC	CATCCATTAT	TTTTCAGGAA	CTTTTACGCT	TCCATCAAGG	3840
ATTTTAGCTT	TTGCATCTTC	GACAGCTTTT	TTACCTTCTT	CTGAAAGGTT	TGTTACTGCC	3900
AAGTCAACCC	CTTTATCCTT	CAATGAGTAA	ACGATCACTT	GACCGCCAGG	GAATTCTCCT	3960
CTTTCTGCCT	TGTTAGAAAT	ATCTTTTACA	GTTGTACCAA	CTTGTTTCAA	AGTAGATACA	4020
AGAACAAAGT	TTGATTCTPT	GCCATCTTTA	GAAAGTGATT	TACCTTCTGC	TTCTTGGTCA	4080
CGATCAACAC	CGATAACCCA	AACTTTTTC	TTTTCAGGAC	GGCTTTCGTT	GAGAGATTTT	4140
GCCTCTGCAA	AGACACCTGC	ACCTGTACCA	CCAGCTACTT	GGTAAACAAT	ATCTGCACCG	4200
GCTGCGTATT	GTGCGGCTGC	AATTGTTTTA	CCTTTAGCCG	CATCACCAA	TGAACCAGCG	4260
TAGTCAACTT	GGACTTTGAT	AGATGGGTCT	ACTGACGCAA	CACCAGCCTT	GAATCCTGCT	4320
TCAAAACGAG	AGATAACTTC	AGATTCGATA	CCACCTACAA	AACCAACTTG	TTTTGTCTTA	4380
GTGTTTTTTG	CTGCAGCCAC	ACCTGCAAGG	TAACCTGACT	CATTATCAGC	GAAAGTTACG	4440
CTCGCAACAT	TCTTTTGGTC	TTTAATCACA	TCATCAATCA	AGACATAGTT	CAAGTCAGTG	4500
TGTTCTTTTG	CTGCATCTTT	AACTGCATTA	TTAAGGGCAA	AACCAACACC	GAAGATTAGG	4560
TTGTAACCTC	CAGCCGCTTG	TTGCAAGTTG	TTAGCGTAGT	CAGCTTCACT	TGTTGATTGG	4620
AAGTAAGTGA	AACCGTTATC	TTTTGAAAGA	TTGTGTTCTT	TACCCCAAGC	CTGCAAACCT	4680
TCCCAAGCTG	ATTGGTTGAA	TGATTTGTCA	TCAACACCAC	CAGTATCAGT	GACGATTGCT	4740
GCTTTTGTCT	TCACATCAGA	AGATGAAGCT	GC GTTACGAG	AAGAGCGGTT	ACCACATGCA	4800
GCAAGTCCAA	CTGCTGCCAC	TGCAACTAGG	CCAAGACCTA	GCCATTGTTT	CTTGTTTCATT	4860
ACTGAACCTC	CTAAATAAGA	TGTGCAACGA	TGTTGCAAGT	ATGGATTGGT	TGGCCACAAG	4920
GACCGTGCCA	CTCAGAGAGC	GACTCAGACT	AGTTTAAAGTC	TGTAAAAGAG	TATGGAAGTA	4980
ATTCCCCGAC	CGTCATCTCG	ACCGTCGATT	TATCTTTTGC	GACTAAGGTC	ACTTTTAGAT	5040
CTTGTTCAAA	AAATTCAGCC	ATCACTTGGC	GACAAGCACC	ACATGGCGAG	ATCGGTTTTT	5100
CAGTTTGACC	ATAGACAATC	AATTCTGAAA	ATTCTCTTTG	GCCTTCAGAT	ATAGCCTTAA	5160

565

AAATAGCTGT TCTCTCACCG CAATTGGTCA AAGGATAGCT AGCATTTTCA ATATTCACTC	5220
CCGTGTAAAC ACTTCCGTCT TTAGCTACTA AAAGTCTCC GATAGGAAAG TGAGAATAGG	5280
GGACATAGGC ATGTTTGCTG GTTTC AATTG CCAGTTCAAT CAACTCAGTA GTCGCCATCT	5340
GCCAATTCTC CTTTTAAAAT AGCTACCCCA GCTGACGTTT CGATACGGGT CGCACCTGCT	5400
TCGACAAAGG CAAGAGCATC TGCATAAGAA CGAGCTCCAC CGGCGGCCTT GACACCCATA	5460
TCAGATCCAA CTGTTTCACG CATTAATGTA ACATCTGCTA TCGTAGCACC ACCAGTTGAA	5520
AAGCCAGTAG ATGTTTGTAC AAAGTCAGCC CCAGCTTTTT GGGCCAATTG GCAAACAACA	5580
ACTTTTTCTT GGTCTGTCTG AAGGCAAGCT TCAATAATGA CTTTCACTAA CTTATCACCA	5640
CTTGCTTCCA CTAAGTCTG AATATCTGAC TCAACCAAGG CTAATTACC TGATTGAGA	5700
GCTCCAACAT TGATCACCAT ATCAATCTCA TCTGCACCAT TTTGGATAGC TTCTTTGTG	5760
TCAAATGCTT TCACGGCTGA AGTTGTGCT CCCAAAGGGA AACCTACTAC TGTGCAAACC	5820
TTAACATCTG TGCCTTCAAG TCCTTTTTTA GCATGTTCAA CCCAGGTCGG ATTAACGCAA	5880
ACACTGGCAA AGTCATACTC TCTAGCCTCA GACAACAAAC TATCAATTG TTTTTCTTT	5940
GCATCTGTT TAAAAGCGT ATGATCTATA TATTTATTTA ATTTCAATTC GGTTTTCCCT	6000
CCATTTAGGA GATGATTTCT ACAATTTAC GGATTTTTT CACTTCATCA CTTATTTTAA	6060
CACATTTTTG GAAATCTGTA ACTAGTTGAG GTGGAATTTT TTCATTTGTG TATACTTTTG	6120
CAACAATTTT ACCCTTTTGA ACGGAGTCTC CAATCTTCTT TTCAAAAACA ATTCTGTCTT	6180
CATAGTCCAA GGCATCAGAC TTAAGTGCAC GACCAGCACC CAGCCTCATG GCATAAAGAC	6240
CAAAGTCCAT AGCTGGAAGA GCTGAAATGA CACCCGTTTC CTGAGCAGGG ATTTCCACCA	6300
CATGAGCTAC ATTTACAGGA CGATAGAGGT CTTCCAAGTC TCCACCTTGG GCTTGACCA	6360
TTTCCTCAAA CTTAGCCAGT GCTTGACCAT TCTCAAGATG TTGGTGAACT TCTTCAACAG	6420
TTTTGTAAAC ATTTGCCAAA CCAAGCATAA TTTGAGCCAA TTCACAAATA AAGTGGGTAA	6480
TATCCTGACG TCCTTGACCT TGCAAAATCT CCAATGCTTC AAGGATTTCC AGACGATTT	6540
CAATCGCTCG TCCCAAAGGC TGGCTCATAT CCGTAATCAC TGCTACTGTC TTCCGTCCAA	6600
CAACCTTACC AAGATCTACC ATAGTTTGAG CCAACTCACG CGCCTCATCA ACCGTCTTCA	6660
TGAAGGCACC CTCACCGACA GTCACGTCTA GCAAAATAGC ATCCGCCCCCT GCCGCAATTT	6720
TCTTGCTCAT CACCGAACTC GCAATCAAAG GAATCGTGTC GACAGTTGCG GTCACATCAC	6780
GAAGGGCATA GAGAAGCTTA TCTGCTTTGA CCAGCTGGTC TGATTGCCCA ATGACAGATA	6840
CTCCAATATC CTGAACCTGA CGAATAAAAT CCTCTTGACT ACGTTCTACT TGATAGCCCT	6900

566

TAATGGACTC CAATTTATCA ATTGTTCCGC CTGTATGGCC AAGACCACGA CCACTCATTT	6960
TTGCTACAGG CACACCGAAG CTAGCAACAA GAGGAGCTAA AATCAAGGTT ACCTTATCGC	7020
CGACACCACC AGTAGAATGC TTGTCAACTT TCACACCATC AATGGCTGAC AGGTCAAAC	7080
CTTGCCCACT CTTAACCATA TTCATCGTTA AATCAGAGAT TTCTCGAGTC GTCATTCTCT	7140
TAAAAATAAC AGCCATAGCA AAGGCAGACA TCTGATAATC AGGAACAGTT CCTGATACAT	7200
AGCCTTCTAT CAGCCATTCA ATTTCACTTG AAGTCAGTTC TTGACCGTCT CGTTTTTTTT	7260
GGATTAAATC AACTGCTCTC ATTCTTTCAC ACTTCTAAGG ATATAGTATC CCTTGTCTTT	7320
TTTAAGGATT TCACAATTGC CAAACACATC TTCCATCTTA GACTTGGCAC TTGGAGCTCC	7380
TTGTTTTTTC TGGATGACGA TGGTCAAATC TCCACCAATT TCCAAGAAAT CTTACTTTT	7440
CTCGATGATT TCATGAACGA CTGCTTGCC CGCACGGATA GGAGGATTGG AAATGACATG	7500
GTCAAATCGC CCTTGAATC TTGCATAAAT ATTAGATTGA AATATCGTCG CTTTTCATTT	7560
ATTTTTTTCA GCATTTCTCT GAGCTAAATC CAGGGCACGA GTGTTAATAT CAACCATGGT	7620
CGCCTGAAT CCGTAAACCT TGACCAAGGA CAAACCTAAT GGACCATAAC CACAGCCTAC	7680
ATCTAGGACT GTCTCTCCTT GGTGACATC CAGACACTTG AGCAAGAGTT GACTTCCAAA	7740
GTCAACCATT TTCTTGCTAA AAACACCCGC ATCTGTCAA AAAGTCATTT TTTCTCCCAA	7800
CAAGTCCACT CTCAACTCAT GAATGTCGTG AGCAGCGTCA GGATTTTCTG CATAGTACAT	7860
TTTACTCATG ACACTATTTT ACCATAATTT GACTCAAAT GTAAATCGTT TACAAATTGA	7920
TAATAAACG AAAAAGACCG AAGAAAGCAA GTCACGAAGC CATTTTCTTC AATCTCTTTC	7980
AACACTTATA AATAATAAAC CATTTAGAAC TATAAATATC ACAGTCCAGA TAAAAACAA	8040
AAGTTTATCA TCTATAATCA GGCAGATTAT TATTTCTATT GCTTAACCTT AAAATACTTT	8100
ATTATCAACA AAATTCCTAA CAAAATGTTT AGATAAAGC CCAACTGATA CGTTTATGTC	8160
AGGATTCCA AACTTGCCA AAGTCGTATC AAATCTTCTA GTGACATGTG GAAGAAATAA	8220
CCCTCTGTCG CAATCCGTAG GACTAAAAAG CAATAACTAC CCGCAGCAAT CCATTTCGTC	8280
CATCGTTTTT TAGTAAGAAA GCAATTAAGA ACGAACAAT AAAGACAGCT GTTACAATAG	8340
CATGTTCCAT CAAAAAGTA AAACCGTAAT AGGTTTCCAC AAAGCATCTA CCATTATCTG	8400
CATTGGTCC TTTTATAAAA GGTAAAGCAA AACTTAAAT AAAACAGAGT TCCAATATGT	8460
AACGTTTTAA GATTTTCATA GTACACCTCC TATAAGTTGT GAACTAAAAA GCCCCCTTTA	8520
TAAGCTTATA AATCAGTAGA ATCTATCTCC TATTTTCATCA ATAAATTGAT CACTTATACT	8580
ATATACCATT GACTTACCAC ATTCAAGAAA CCGCTTTATT TTTTGTAGCTT TTTATGGTAT	8640
GATAGACAAA ATATCTAGGG GAAAACAAAT GACCAACGAA TTTTACATT TTGAAAAAT	8700

567

CAGCCGCCAG ACTTGGCAAT CTTTACATCG AAAGACAACA CCTCCTTTGA CAGAAGAAGA	8760
ATTGGAATCT ATCAAGAGTT TTAATGACCA AATCAGTCTC CAAGACGTTA CAGATATCTA	8820
TCTCCCTTG GCTCATTTGA TTCAGATTTA CAAGCGAACT AAGGAAGATT TAGCCTTTTC	8880
AAAAGGAATT TTCCTCCA	8898

(2) INFORMATION FOR SEQ ID NO: 70:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13188 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

TATCTTAACG aGATTGGGT TTATCGTCAG TCTTATTGCC CTAATTGTGG GAACAATCCC	60
TTAAATCATT TTGAAAATAA TCGGCCTGTA GCAGATTTT ACTGTAATCA TTGTAGTGAG	120
GAGTTTGAAC TAAAGAGCAA AAAAGGAAAT TTTTCATCAA CAATCAATGA TGGTGCCTAT	180
GCAACGATGA TGAAGCGTGT GCAGGCAGAT AATAATCCTA ATTTCTTTTT TTTAACTTAC	240
ACAAAAAAT TTGAGGTAAA TAACTTCTTT GTCCTTCCGA AGCAATTGT TACACCGAAA	300
TCGATTATTC AAAGAAAACC ACTTGCACCA ACTGCTAGAC GAGCAGGTTG GATTGGTTGT	360
AACATTGATT TATCACAAGT ACCTTCTAAA GGAAGGATAT TTCTTGTGCA AGATGGACAA	420
GTTAGAGATC CAGAAAAAGT TACAAAAGAA TTTAAGCAAG GTTTATTTTT AAGGAAGAGC	480
TCTCTGTCAT CAAGAGGTTG GACAATAGAA ATTCTAAATT GTATAGATAA GATAGAGGGT	540
TCAGAATTTA CCCTTGAAGA TATGTATCGT TTGAAAAGTG ACCTAAAAAA TATCTTTGTT	600
AAGAACAATC ATATCAAAGA AAAGATTAGG CAACAGCTTC AAATATTAAG AGACAAAGAA	660
ATAATAGAAT TTAAAGGTAG AGGAAAGTAT CGGAAATTAT GAAAACGAAA CAACTTGTTG	720
CATCAGAAGA GGTGTATGAT TTCTTAAAAG TCATCTGGCC TGATTATGAA ACTGAAAGCC	780
GTTACGATAA CCTAAGTTTA ATCGTCTGTA CTTATCAGA TCCCGATTGT GTGAGATGGT	840
TATCTGAAAA TATGAAATTT GGTGACGAAA ACAACTAGC TTTGATGAAG GAAAAATATG	900
GGTGGGAAGT AGGAGATAAA TTGCCAGAGT GGCTACATAG CTCCTATCAT AGATTATTGT	960
TAATAGGTGA ATTATTGGAA AGCAATCTAA AACTGAAAA GTATACAGTA GAAATTACAG	1020
AACTTTATC ACGTTTAGTA AGTATAGAGG CTGAAAATCC AGATGAAGCC GAACGACTTG	1080
TAAGAGAAAA GTATAAGAGT TGTGAAATTG TTCTTGATGC AGATGATTTT CAGGACTATG	1140

568

ACACTAGCAT ATATGAATAG GTAGATGTTT TTATTTTGTC AACAAAAAG AGGCTCGCAC	1200
CTCTTTTCT TATTTCTTT TATGATTAA TACGGCATTG AGGACAATAG CGAGTAGGCT	1260
GGCTACGACG ATTCCGTTTG AGAAGACAT TTGGAAGGCT GTCGGCATGC TGACAAAGAG	1320
ATTACTGTTG TTGAGACCGA CACCTGCAGC GATTGAAACA GCTGCGATAA GGAAGTTGTG	1380
TTCATTGTTA GCAAAGTCAA CACGGGCGAG GATTGTCATC CCTGAATTG ATACAAAACC	1440
AAACATTACC AGCATGGCAC CACCGAGGAC GGAGCTTGA ATGATTGGG CAAGGGCGCC	1500
AAACTTAGGA AGCAGTCCAA GGAGAACCAG GAAACCAGCT GCGTAGTAGA TTGGCAGGCG	1560
TTTTTTGATG CCTGACAATT TAACCAAACC AACGTTTGT GAAATCCGG TGTAAAGGAA	1620
GGTGTTAAAG ATTCTCCGA GAAGTACGGC CAAACCTTCT GCGCGGTATC CGTTGCGAAG	1680
GCGCGTGCTG TCGATTGGAT CCTTTGTGAT ATCAGACAAG GCCAGATAA CACCAGTTGA	1740
CTCAACCATA GACACCGTTG CGATGATACA CATCATGACA ATAGATGAGA TTTCAAAGGT	1800
TGGCATCCCA AAGTAGAGTG GAGTTGGGAC ATGGACAAGT GGAGCTACCG CAACAGGAGA	1860
GAAGTCCACC AAGCCCATAG TAGCAGCAAT GGCAGTTCCA ACAACCAGAC CAATCAAAT	1920
AGAGATAGAC TTGATAAATC CTTTGSTAAA GATGTTGATC AAGAGGATAA TCAGAACAGT	1980
AATAGCTGCA AGCAAGAGAC TTTGACCAGT TGGCTCTGGA ACGTTATTTT CCATATTTCC	2040
AATAGCGACA GGGATCAAGG TTAAACCAAT CGTGGTAATA ACAGATCCTG TTACGATAGA	2100
TGGGAAGAGA TTGGCTACTT TTGAGAAGAT GCCTGAAACA AGAACCACGT AAATCCAGA	2160
TGCGATAAGG GCACCAAACA TAGCGCCACT ACCATGGCTT TGCCCAATCA TAATCAAGGG	2220
AGCGACCGAC TGGAAATGCA CTCCAAGAAC GACTGGGAGT CCAATCCAA AGTATTGTGTT	2280
GAGTTGGAGT TGGAGGAAGG TTGCCACCCC ACACATGAAG ATATCTGTAG AAATCAGGTA	2340
GGTCAACTGC TCAGCTGAAT AGCCAAGGGC TGTCGCAATC ATGATGGGAA CCAGGATAGA	2400
TCCTGAGTAC ATGGCTAGTA AGTGCTGCAA GCCAAGAACG GCTGCTGCG AGTGTTTTC	2460
TTGAGTTTGC ATTAGAGATC TGCCTCCTTA AATACGACTT GACCATTTTC AAAACAATCC	2520
AAACGAGCAA GTGATAGGAC AGGGTAGCCT GCTTTTCAA GCAAATCACG ACCATCTTGG	2580
AAGGATTCT CAATCACGAT ACCGATAGCT TGGACTGTGG CACCGGCTG TTCGATGATT	2640
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TCCTCTGGTG AGAGGAATTT TTCAGCGATA GAAACGGTGC TGGTCACCTG CTTGGTAAAG	2760
GAGTAGACTT GAGCAGTTAA GATGCCTTCG TTCATGGTGA TGTCTTAGC TTTTGGCG	2820
AAAATCATGG GAACGTTTAA GGCTTCAGCT GTAAAAACGG CTGGGCAAT ACCCGACGCT	2880
TCAATGGTTA CGACCTGGT AATGCCAGTA GTAGCAAAT TTTCCGCAA AACCTTACCA	2940

569

ATCTCTCGCA TCAAGCTAAA GTCAACTTGG TGGGTAAAA AGGAATCTAC CTTGAGGATG	3000
TTATCACCCA AGATATGCCC ATCCTTGAGG ATGCGCTCTT CTAATAATTT CATAAGACCT	3060
CCTAAAGTCT AAAAGTTAAT TTACTTGTG TTTAAATATT TCTATAGTGA TCCCTTTTGC	3120
TAATACTATA TATTTGATAA AACTATTACG AGCGAAGCGA GTCTTATCAA ATATTTCCCG	3180
TTGTAGTGGT ATCATAGACA ATAATCTTGT TATTGTCTAT GACGGGATTT TTGAGAGTAA	3240
AATAGTTTCG GGAACATTT TAGCCTAAGC CTAGAAATGA AAGAGCTAGG GGCTCAAAAA	3300
TTAGGGATGA AATTCCTGG ATTCCTGAAA TTATTCACAG GATAATTTCA CCTCCCGTCC	3360
GCACTAATTA AGGGAATAT TAAAAAAGA CCTACTTAAT CTCTAAGTAA GTCCCTAAA	3420
TAGACATGGC AAAAACGGCC ATATCTCACT GCTGACTTAC TTATTGTTAG GTGTTCGGC	3480
ACCTTGTAGA AACGTCGTGC CAATTCACGA CATAACAAG TAAACGATA TTCAATTTTA	3540
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TTAGTGTTTT GGTAAAAA ACCAACAAAA AGAAGAGAGG GTGAACAAAA ACTCCATTGT	3660
AAGCTAACAG TTATACTAAA TGAAAATCAA AGAGCAAACT AGGAAGCTAT CCACAACCTC	3720
AAAACACTGT TTTGAGGTTG TGGATAGAAT TGACAGAGCC AGTATCATAT ACCTACGGTA	3780
AGGCGACGTT GACGTGGCTT GAAGAGATTT TCGAAGAGTA TTAGAAGATT TTCCCATCAT	3840
AAAAGGCATA CTATCAAGCT TTTAGACACC TGACAATATG CCTTTTCTA ACTTTAAAGA	3900
CTTTTCCCAA TTTTATTAT TCTACTCGCT AAATCTTAAA AAATAGCCAT CTGGATCCAA	3960
AACTGCAAAT TTATGAGGAT AGATATAGGG ATCACTGACA CGAACTTTC TTTTGGTCAA	4020
GGGACGATAA ATAGGATAGT TTGCCTTCAT CACTCTTTAA TAGAGTTTGT AAACATCCTT	4080
TATGCCAAAG GAGAGATTGA CTCCACGACC AAAGGGATAG GTCAGTTCAG CTAGTTGATC	4140
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GGACGTGGT ATTCAATCCT AAAACCCAGT AAACCACAGT AGAAGGACCG GGACTGTTCTG	4260
ATATTCGATA CAAGCAACTC GGAATGACC GCATTGTAGT CCATATAGAA AATCCTTACA	4320
AGTCAATTTT CAAGACAATC GGTGTATGGT CTTGGCGAGC ACCTGAGTCA ATCATATCAG	4380
ATTTAGTGAC CTGTGCAGCG ATACGGTTAC TTGTGAGCCA GTAGTCGATT CTCCAGCCTG	4440
TATTGTTGAT TTTAGAAGTT TTGCTGCGTT GTGCCACCA AGTGTAGCGT TCAGGAACAT	4500
CGCCATGAAC ATGGCGGAAG GTGTCTGTAA ATCCAGTTGC CAAAAGGTTG GTAAATCCAG	4560
CACGTTCTCT GTCAGTAAAT CCAGGTGAAC GCGGTTGCT AGCAGGATTT GCAAGGTCGA	4620
TTTCATTGTG GGCTACGTTG TAGTCACCGG TCGCAAGGAC TGTTTTTCT TTGTCTAGTT	4680

570

CAGCCAAATA CTCAGCATAT TTGGCATCCC AGACTTGGCG TTCTTCCAAG CGTTTGAGAC	4740
CGTCACCAGC GTTTGGAGTG TAAACTTGGG TTACGAAAAA TGCATCAAAT TCTAGAGTGA	4800
TGATACGACC TTCCAAGTCC ATGGTAGAAG GGGCACCGAT TTCTGGGAAG CTGATAGTAG	4860
GTGTAAGTTC TTTCTTATAA AGGAACATGS TTCCAGCATA GCCTTTACGG GCAGGCTCTT	4920
GGGAAGAGCG CCACGTGTTT TCGTAGCCTG GGAAGAGTTC TTCTAAAATT TCCACGTGTT	4980
TCTTTGTAGG TCCTTTGGCA GAAAGCTTGG TTTCTTGGAT AGCAATGATA TCAGCATTTT	5040
CAGCGACCAA GGTTTGTAGG ACTTCTTGGG ACAAATTGGC ACGAGCTGAG TCACTAGTTA	5100
GGGAGCGTT TAGGGAATCA ATATTCCATG AGATAAGTTT CATAAAGTTA CCTTTTTCAT	5160
TCAGATTATA GATTTTATTA TACCAAAAAA AGATCTATTT CCCCACGTA TGGTTTGAAA	5220
AATTACTCTC TTTCTTTTAT AATTAAGAAT GATTTTATGA AAGGGAGTGA AAATACATGA	5280
AATTCTACTC TTATGACTAT GTACTCAGCC AAATCGGTCA GCAAAATGGT ATCATGGTTG	5340
GCTTTGGGAT TGTCTATTA GCTGTGACAG TTTTTTTTGC TTTCAAGGCA TACCATAATA	5400
AAAAGGGAAG CGAATTTCTG GAGTTGGTCA TGATTTTCTG TCTGGCCTTA TTTAGCTCTG	5460
CTTTTGGTCA GCATCACGAC TTATCAAAAC AATCAAGTTT CTAACAATAA ATTTCAAAC	5520
TCACTTCAIT TCATCGAGGT TGTTTCCAAA GATTTGTGAG TAGACAAGTC AGAAGTCTAT	5580
GTTAATACTT CCACAAACAC AGATGGCGCA CTTATCAAGG TGGGAGATCG CTATTATCGT	5640
GCCCTAAATG GAAGTGAGCC AGACAAGTAC CTGTTAGAGA AAGTCGAATT GTATAAGACA	5700
GACGCAATG AACTGGTGGA TGTGAACAAA TGACACTTAA TTATATCGAA ATTTTAATCA	5760
AACTGGTCTT GACTCTCAA TAGCTCAACA ACAATGTTCA CTTTGTGAAA CGTTTGATTG	5820
ATGGTAAGCC AACTCTCCTT ATCAAAAATG GGAATATTGA CCCAGAAGCC TGTCGTTTCTG	5880
TTGGTTTGTG TGCATCGGAT GTATCCCTCA AACTTCGTAG CCAAGGGATT TTCCAGATGA	5940
AGCAAGTCAA ACGAGCTGTG CAAGAGCAAA ATGGGCAACT CATCGTTGTG CAAATGGGAG	6000
ATGAAAATCC TAAGTATCCA GTTGTGACTG ACGGTGTGAT TCAAGTAGAT GTCTTGGAAT	6060
CGATTGGTCG TAGCGAAGAG TGGTTGCTTG ATAACCTCAG TAAACAAGGG CATGACAATG	6120
TAGCCAATAT CTTTATTGCT GAATATGACA AGGGTGCTGT TACAGTCGTA ACTTATGAAT	6180
AAGAAAAACC TGGGGTCTTG TACTCTTCTG AATCTCTTTC AAACCGCGTC AACGTCGCCT	6240
TGCCGTATGT AGGTACTGA CTTCTGTCAG TCTATCTACA ACCTCAAAGC AGTGCTTTGA	6300
GCAGCCTGCG GCTAGTTTCC TAGTTTGCTC TTTGATTTTC ATTGAGTATT GGCCTCAGGT	6360
TTCCATTGTC AATCAGAAAG GGATTTTATG TCCATTATTC AAAAATTG GTGGTTTTC	6420
AAGTTAGAAA AACGCCGTTA TCTAGTCGGA ATTGTGGCCC TGATCTTGGT TTCCGTCCTC	6480

571

AATCTCATTC CTCCTATGGT TATGGGGCGG GTCATTGATG CCATCACATC GGGGCAATTA	6540
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TATTTGCGCT ATGTGTGGCG TATGTATATC CTTGGGACCT CTTATTGCTT GGGACAGATC	6660
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CGGACGGGTG ATCTGATGGC ACACGCAACC AATGATATCA ATGCCTTGAC TCGTTTAGCA	6780
GGTGGCGGTG TCATGTCTGC GGTGGATGCC TCTATCACGG CTCTGGTGAC TTTGTTGACC	6840
ATGCTCTTTA GCATCTCATG GCAGATGACT CTTGTTGCCA TTCTCCCCCT ACCTTTCATG	6900
GCCTATACGA CTAGTCGCCT AGGGAGAAAG ACTCATAAGG CCTTTGGCGA ATCCCAAGCT	6960
GCTTTTCTTG AACTCAATAA CAAGGTACAG GAGTCCGTAT CAGGTATCAA AGTGACCAAG	7020
TCTTTCGGTT ATCAGGCAGA CGAGTTGAAG TCTTTCAGG CAGTCAATGA ATTAACCTTC	7080
CAAAAGAACC TGCAAACCAT GAAATATGAT AGTCTCTTTG ACCCTATGGT TCTCTTGTTT	7140
GTTGGTTCGT CCTATGTTTT AACGCTTTTG GTTGCTCCT TGATGGTTCA GGAAGGGCAG	7200
ATTACAGTTG GGAATCTAGT CACCTTTATC AGCTATTTGG ATATGCTGGT CTGGCCTCTT	7260
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GAAAATCTTT TGTCTCAGGA ATCTCCTGTA CAAGACCTG AGTTTCCTCT GGATGGTATT	7380
GAAAATGGGC GTTTGGAGTA TGCCATTGAC AGCTTTGCTT TTGAAAATGA GGAACACTG	7440
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GGCAATCCTA ACTTGCCCTT TTCAGCGGTC GAGGAAGCTA CTAAGCTAGC CCGGTTTAC	7740
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TTGGAAATGA AAGGAGAAGA AGATGCAGAA TAAACAAGAA CAATGGACTG TATTGAAGCG	8160
CTTGATGTCT TATCTCAAGC CTTATGGACT CCTGACCTTT TTGGCACTCA GTTTTCTCCT	8220

572

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CCTACAAACT GTAGTTCAGT ATGTCGGCAA TCTTCTCTTT GCGCGCGTGT CTTACAGTAT	8400
TGTTAGGGAT ATTCGTCGGG ATGCCCTTGC CAATATGGAG AAACGGGCA TGTCTTACTT	8460
TGACAAGACG CCAGCAGGTT CTATCGTTTC TCGTTTGACC AACGATACCG AGACGATTAG	8520
TGATATGTTT TCTGGGATTT TATCCAGCTT TATCTCAGCA GTTTTTATCT TTCTGACAAAC	8580
CCTTTATACC ATGTTGGTGC TGGATTTTCG TTTGACGGCT TTAGTCTTGC TCTTCTTCC	8640
TTTGATTTTC CTTTTGGTCA ATCTCTATCG AAAAAAGTCA GTGAAAATCA TCGAGAAAAC	8700
CAGAAGTCTC TTGTCAGATA TCAATAGTAA GCTGGCAGAG AATATCGAGG GAATCAGGAT	8760
TATTACGGCC TTTAATCAAG AGAAGCGCCT GCAGGCAGAA TTTGATGAAA TCAACCAAGA	8820
ACACTTGGTC TACGCCAACC GTTCTGTAGC CTTGGATGCC CTCTTTTGA GACCTGCCAT	8880
GAGTTTGCTG AAACCTCTAG GCTATGCAGT CTTGATGGCC TACTTTGGCT ACCGTGGTPT	8940
TTCTATCGGG ATAACGGTCG GGACCATGTA TGCCTTTATC CAGTACATCA ACCGCTTTT	9000
TGACCCCTTG ATTGAGGTGA CGCAAACTT TTCAACTCTG CAAACGGCTA TGGTTTCTGC	9060
AGGTCGTGTC TTTGCCCTGA TAGACGAGAG GACCTATGAA CCTCTTCAAG AAAATGGGCA	9120
AGCCAAAGTC CAAGAAGGCA ATATCCGTTT TGAACATGTG TGTTCCTCAT ATGACGGTAA	9180
ACATCCGATT CTGGATGACA TTTCTTTCTC TGTTAATAAG GGTGAAACCA TTGCCTTTGT	9240
AGGTCATACA GGTTCAGGGA AATCGTCTAT TATCAATGTC CTCATGCGCT TTTATGAATT	9300
CCAGTCAGGG AGAGTTCTCT TGGATGATGT GGATATCAGG GATTTTCTAT AAGAAGAGCT	9360
GAGAAAAAAC ATCGGTTTGG TCTTGCAGGA ACCCTTCTC TATCATGGAA CTATTAAGTC	9420
CAATATCGCC ATGTACCAAG AAACCAGTGA TGAGCAGGTT CAGGCTGCGG CAGCCTTTGT	9480
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TGGTTCGAGC TTCTCTACTG GGCAACGCCA GCTTCTTGCC TTTGCTAGAA CAGTCGCCAG	9600
CCAGCCTAAA ATCCTGATTT TGGATGAAGC GACAGCCAAT ATTGACTCTG AAACAGAAAG	9660
CTTGGTTCAA GCTTCTCTGG CGAAGATGAG ACAGGGCCGA ACAACTATTG CTATCGCTCA	9720
CCGCCTTTCT ACTATTCAAG ATGCCAACTG CATCTATGTC TTGGATAAGG GACGCATTAT	9780
CGAGAGTGGA ACCCATGAGG AACTCTTGGC TCTGGGAGGA ACCTATCACA AGATGTATAG	9840
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ATCTGCAATC TCAAAGCTGT ACTTTGATTT TCATTGAGTA CTAGAAGGAA ATCCTTCAA	9960
TTACAGATT TTTTCAACCG CTTTCCATT TTGTGGTATA ATGAAAAATG TTGACAAATA	10020

573

GTATAATAAA AACAAAGGAG AACAGCATGC TGAAATGGGA AGACTTGCCT GTGGAAATGA	10080
AATCAAGCGA GGTGAGTCT TACTACCAGC TTGTCTCTAA AAGGAAGGGT TCGCTGATTT	10140
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TTCTCATCTT GAGCATTGAG ATCAAGTTGG ATAGCAAAGG GCCAGTGATT TACAAGCAAG	10260
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ATGCGGATAA AAAAGGAAGT CTGGTGACTT CTGCTAACGA TAGCCGCATT ACCAAGGTTG	10380
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GTGAGATGTC CTTTGTGGT ACACGACCTG AAGTGCCACG TTATACAGAG CAGTATAGCC	10500
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CCTATGTGGA GCATGTTCTT CCTGAAAAGA TCGCTATAA CCTCGCCTAT CTCCGAGAGT	10680
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CATTTTCACC GCCTGATATC ACAGAAGCAG AAATTACTGA AGTAGTGAT ACCCTGCGTT	10860
CTGGTTGGAT CACAACAGGT CCTAAACAA AAGAACTGGA GCGCCGCTTG TCTCTTTACA	10920
CACAGACACC TAAGACTGTT TGTCTCAACT CTGCGACAGC CGCTCTGGAG TTGATTTTAC	10980
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GGGAATACGA TATCGTTACA CCAGCCTATA AGTGCAACAT GACCGATATC ATGGCTTCAC	11580
TTGGTTTGGT ACAATTGGAC CGCTATCCAA GTTTGTTGCA ACGCCGTAAG GACATTGTGG	11640
ACCGCTATGA TAGTGGTTT GCAGGTTCTC GCATCCATCC TTTGGCACAC AAGACTGAAA	11700
CTGTCGAATC TTCACGCCAC CTCTACATCA CCCGTGTAGA AGGAGCAAGC CTAGAAGAAC	11760

574

GCAACCTCAT CATCCAAGAA TTGGCTAAAG CAGGAATTGC AAGTAATGTT CACTACAAAC 11820
 CGCTTCCTCT CTTGACAGCC TATAAGAATC TTGGATTTGA TATGACGAAC TATCCTAAGG 11880
 CCTATGCCTT CTTTGAGAAT GAAATTACCC TCCCTCTTCA TACTAAATTA AGCGATGAAG 11940
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 AAAAATGACA AACTACAGTC AAGCGAAAGT GATCCTGCCC CTAAAAAGTC TAATTGAGTG 12060
 TAAAACTGT TGTTTTCAAT TGATAATAGT TTACACCTGT AGTTGAGGCC CCTTTCCTCT 12120
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 GTAGATATAG TAAATGAAA TGAGAATAGG ACAAATTGAT CGGGACAGTC AAATCGATTT 12900
 CTAACAATGT TTTAGAAGTA GAGGTGTAAT ATTTTAGTTT CAGTCTACTA TAGAACTGAC 12960
 CAAGTCAGTA ACCTAGACTT AGGGCAAGGC GGCAGTGACC TAGTTTGAAG AGATTCCGA 13020
 AGAGTATAAA TTTTAATATT TTCTTGTGTT ATTCCTTGAC AATTCAATTT GGAAATATA 13080
 TGATAAAGAT AATGACAGCG GTGTCATTCT ATCTATTTTA AGAAAAGTAA TAATCAATTG 13140
 TAAAAATAG TAAAAAATT GGAGGTTCTG ATGAAATATT TTGTTCCG 13188

(2) INFORMATION FOR SEQ ID NO: 71:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 32768 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

575

AACGAGTGCA TCAGTCTCAG CAAGCACCAG TCGCTCGGCC TCAGCAAGCA CCAGCGCGTC	60
TGAATCCGCA TCAACCAGTG CCTCAGCTTC AGCAAGTACC TCAGCATCTG AATCAGCATC	120
AACAAGTGCA TCGGCTTCAG CAAGCACAAG TGCTTCAGCC TCAGCAAGTA TCTCAGCGTC	180
TGAATCGGCA TCAACGAGTG CGTCCGCTTC AGCAAGTACT AGCGCCTCAG CATCAGCGTC	240
AACAAGTGCT TCGGCTTCAG CGTCAACGAG TCGCTCTGAG TCAGCATCAA CGAGTACGTC	300
AGCCTCAGCA AGCACATCAG CTTCTGAATC TGCATCAACC AGTGCCTCAG CCTCAGCATC	360
GACAAGCGCC TCAGCTTCAG CAAGTACCAG TCGCTCAGCC TCAGCAAGTA CCAGTGCTTC	420
AGCCTCAGCG TCGACAAGTG CGTCGGCCTC AACCAGTGCA TCTGAATCGG CATCAACCAG	480
TGCGTCAGCC TCAGCAAGTA CTAGCGCCTC AGCCTCAGCA TCAACGAGTG CGTCCGCTTC	540
AGCAAGTACT AGTGCATCAG CATCAGCATC AACGAGTGCA TCGGCTTCAG CAAGTACCAG	600
CGCCTCAGCT TCAGCAAGCA CCAGTGCCTC AGCCTCAGCA AGTACCAGCG CCTCAGCCTC	660
AGCAAGCACC AGTGCCTCAG CTTCAGCAAG TACCAGTGGC TCAGCCTCAG CGTCGACAAG	720
TGCGTCGGCT TCAGCAAGTA CCTCAGCGTC TGAATCAGCA TCAACGAGTG CATCAGCTTC	780
AGCATCAACA AGTGCTTCAG CTTCAGCAAG TATCTCAGCG TCTGAATCGG CATCAACGAG	840
TGCGTCCGCT TCAGCAAGTA CTAGCGCCTC AGCATCAGCG TCAACAAGTG CTTCCGCTTC	900
AGCGTCAACG AGTGCCTCTG AGTCAGCATC AACGAGTACG TCAGCCTCAG CAAGCACATC	960
AGCTTCTGAA TCTGCATCAA CCAGTGCCTC AGCCTCAGCA TCGACAAGCG CCTCAGCTTC	1020
AGCAAGTACC AGTGCCTCAG CCTCAGCAAG TACCAGTGGT TCAGCCTCAG CGTCGACAAG	1080
TGCGTCGGCC TCAACCAGTG CATCTGAATC GGCATCAACC AGTGCCTCAG CCTCAGCAAG	1140
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TACCTCAGCG TCTGAATCAG CATCAACGAG TGCATCAGCT TCAGCATCAA CAAGTGCTTC	1440
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AACCAGTGCC TCTGAATCAG CATCAACAAG TGCTTCGGCT TCAGCAAGCA CCAGTGCCTC	1560
GGCTTCAGCA AGTACTAGTG CATCGGCTTC AGCATCGACA AGTGCCTCTG AATCGGCATC	1620
AACGAGTGCT TCGGCTTCAG CATCAACGAG TGCGTCAGCC TCAGCAAGCA CATCAGCTTC	1680
TGAATCTGCA TCAACCAGTG CGTCCGCTTC AGCGTCAACC AGTGCCTCGG CTTCAGCGTC	1740

576

GACAAGTGCT TCGGCTTCAG CATCAACGAG TCGGTCGGCC TCAGCAAGCG CAAGTACCTC	1800
AGCGTCAGct TCCGCCTCAA CCAGTGCCTC GGCTTCAGCA AGCACAAGTG CGTCAGCCTC	1860
AGCAAGTATC TCAGCGTCTG AATCGGCATC AACGAGTGCG TCTGAGTCAG CATCAACGAG	1920
TACGTCAGCC TCAGCAAGCA CATCAGCTTC TGAATCTGCA TCAACCAGTG CGTCAGCCTC	1980
AGCATCGACA AGCGCCTCAG CTTCAGCAAG TACCAGTGCT TCAGCCTCAG CGTCGACAAG	2040
TGCGTCGGCC TCAACCAGTG CATCTGAATC GGCATCAACC AGTGCCTCAG CCTCAGCAAG	2100
TACTAGTGCA TCAGCTTCAG CATCAACGAG TGCATCGGCT TCAGCATCAA CCAGTGCCTC	2160
GGCTTCAGCG TCAACCAGTG CGTCAGCTTC AGCAAGTACC AGTGCTTCAG TCTCAGCATC	2220
AACAAGTGCT TCAGCCTCAG CATCGACAAG TGCCTCGGCT TCAGCAAGCA CATCAGCATC	2280
TGAATCAGCG TCAACCAGTG CTTGCGCTTC AGCAAGTACC AGTGCTTCAG CTTCAGCATC	2340
AACCAGCGCC TCGGCTCAG CAAGCACCTC AGCTTCTGAA TCGGCTCAA CCAGCGCCTC	2400
GGCCTCAGCA AGCACCTCAG CTTCTGAATC GGCCTCAACC AGCGCCTCAG CCTCAGCATC	2460
AACGAGTGCT TCGGCTTCAG CAAGCACAAG CGCCTCGGCT TCAGCATCAA CGAGTACGTC	2520
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AGCAAGTACC AGTGCGTCAG CCTCAGCGTC GACAAGTGCG TCAGCCTCAG CAAGTACTAG	3060
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CGCCTCAGCC TCAGCGTCAA CAAGTGCATC GGCTTCAGCG TCAACGAGTG CGTCTGAATC	3360
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AGCGTCAACA AGTGCACTCG CTTCAGCGTC AACGAGTGCG TCTGAGTCAG CATCAACGAG	3540

577

TGCGTCAGCC TCAGCAAGCA CATCAGCTTC TGAATCTGCA TCAACCAGTG CGTCAGCCTC	3600
AGCATCGACA AGCGCCTCAG CTTAGCAAG TACCAGTGCG TCAGCCTCAG CGTCGACAAG	3660
TGCGTCGGCT TCAGCAAGTA CCAGTGCGTC AGCCTCAGCA AGTACCAGTG CGTCAGCCTC	3720
AGCGTCGACA AGTGCGTCGG CCTCAACCAG TGCACTTGAA TCGGCATCAA CCAGTGCGTC	3780
AGCCTCAGCA AGTACTAGTG CATCAGCTTC AGCATCAACG AGTGCACTCG CTTAGCATC	3840
AACCAGTGCA TCAGAGTCAG CAAGTACCAG TGCGTCAGCT TCCGCATCAA CAAGTGCCTC	3900
GGCTTCAGCA AGTACTAGCG CCTCAGCCTC AGCGTCAACA AGTGCTTCAG CTTCCGCGTC	3960
AACCAGCGCC TCGGCCTCAG CAAGTATCTC AGCGTCTGAA TCGGCATCAA CAAGTGCCTC	4020
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CACCAGCGCG TCTGAATCCG CATCAACCAG TGCCTCAGCT TCAGCAAGTA CCTCAGCATC	4140
TGAATCAGCA TCAACAAGTG CCTCGGCTTC AGCAAGCACA AGTGCTTCAG CCTCAGCAAG	4200
TATCTCAGCG TCTGAATCGG CATCAACGAG TGCGTCCGCT TCAGCAAGTA CTAGCGCCTC	4260
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AGCCTCAGCA TCGACAAGCG CCTCAGCTTC AGCAAGTACC AGTGCGTCAG CCTCAGCAAG	4440
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GGCATCAACC AGTGCGTCAG CCTCAGCAAG TACTAGCGCC TCAGCCTCAG CATCAACGAG	4560
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CGCATCAACA AGTGCTCGG CTTAGCAAG CACCAGTGCT TCGGCTTCAG CGTCAACGAG	4920
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TGCATCAACC AGTGCGTCAG CTTCCGCATC AACAAAGCGCC TCGGCCTCAG CAAGTACAAG	5040
TGCTTCAGCC TCAGCATCAA CCAGTGCAATC AGCTTCAGCC TCAACAAGTG CTTAGCCTC	5100
AGCGTCAACC AGTGCTCGG CTTAGCAAG TACCAGTGCG TCAGCTTCAG CAAGCACAAG	5160
TGCGTCAGCT TCAGCATCAA CCAGTGCTTC GGCTTCGGCA TCAACAAGTG CCTCAGCATC	5220
AGCATCAACG AGTGCGTCAG CCTCAGCAAG TACTAGTGCA TCAGCATCAG CATCAACCAG	5280

578

TGCATCAGCC TCAGCAAGTA TCTCAGCGTC TGAATCGGCA TCAACGAGTG CATCAGCATC	5340
AGCATCAACG AGTGCATCGG CTTCAGCGTC AACCACTGCA TCAGTCTCAG CAAGCACCAG	5400
TGCGTCGGCT TCAGCATCAA CGAGTGCCTC AGCCTCAGCA AGTATCTCAG CGTCTGAATC	5460
GGCATCAACG AGTGCCTCAG CCTCAGCAAG TACTAGTGCA TCGGCTTCAG CAAGCACCAG	5520
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TGCGTCAGCT CAGCATCAAC AAGTGCTTCA GCTTCGGCCT CAACAAGTGC GTCAGCTTCA	5820
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GCAAACCATT CGAACTCACA AGTTGGAAT ACTTCTGGAT CGACAGGTAA ATCCCAAAAA	6000
GAATGCGCTA ATACAGGTAC TGAGTCGTCA ATTGGATCTG TGTTACTTGG AGTTCTAGCA	6060
GCTGTTACAG GTATTGGATT GGTGCGAAA CGCCGTAAAC GTGATGAAGA AGAGTAAGAC	6120
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579

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580

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581

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582

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584

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585

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586

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AACCTAGTTG AAACCGTCTA TGTGAACAT TTAAAAATG GTTATTTGTT AGCAGATGTT	20220
ACAGAAATTT CTAAGGCTGC ACATTATTAC ACAGATAGGT TGAAGGAGTG GAATGAGTCC	20280
TTGATATATT CAATTGATAA GATTAAGGAG CACACAGGAC AACAATTTCT TGGAAAATTA	20340
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AGTCAATCCA AATTTTACAG GAGCTATTTC TTATCAAGGA TTGGATTATG TCAGTTTGGA	20820
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AAAAACACTC CCTATTGAGT TGTGGCTTGA ATATGAGAAG GAAGGCAATT GTGACTTTCG	20940
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GCGTGATGAA ATAACTATT TCTTCCATCC AGGTGATTTT AAACCGCCTT TGA CTGTCTA	21240

587

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588

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590

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591

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CGGTTCCGGA AGACTTCCAG ATAACGTTC AATTTCATCTA GCAAATCAGA AGCAGGATTG	28560
GTCTGGCTCA GTTGACCTGC AATTTTGTGA AAGAGTTGCG CTAAGATCAG GCTTTCAGTG	28620
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GCTCGTTGTC GTCCGTCTCC TCTGGATAAA TAGTATTTGA AGCGCTGGAG GATATCTTTT	28860
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592

GATGATCCAT	TCGACAATTT	TAGAAGTCAC	GTCAGCGATA	GTTTTTAGCA	ATTCTTGACT	30120
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ACGAATAAAT	CCTCGAGTAG	CCCAATCCCT	GAGAGATTAG	GAAGGTCAG	TCCTAGGATT	30540
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TGATTCTTTT	CATAATAATC	TCCTTTTGT	GTAGTGATTA	TGATTATAGT	ATAAATGATA	30660
GACAAAATCA	AGAATTTTCT	GTCTATTTT	TGAATATTTA	TGGAGAATGA	GACTGATGAA	30720
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CAAACCTTCT	CTAAAAATGT	CTCGTCATGA	TGTTGGACGC	CAAAAAACCA	TCTCACGTTT	30960
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GAGCATCGTC	GCCTGATTAC	CATTAGTAAT	ACCAAGAACG	CCTATGTCAT	TGAACAGATG	31680
ACTCGTTATC	TGGAGAACCA	TGACACGCTT	TCGATTTATA	AGTTTCTCTT	TGCCAGTCTG	31740
GAAATCATCA	GCAATGCCCTA	CTATCCTGTC	ATTGAGCAGA	TGGACAAGAG	TAGGGATGAG	31800
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593

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TCAAACCCCTT GGTCCAACAT GACTCAATCA AAACGCAGAT TAACCGAACT CGTGAGCGTC	32760
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(2) INFORMATION FOR SEQ ID NO: 72:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14872 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

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TTACCGTAGA AAAGGGTGAC TACGTTGCCA TCATGGGTGA GTCTGGTTCT GGTAATCAA	240
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594

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GCAACACTTG GATTTGGTAT GTTTGTCGTT ACCCTTGCCT CAGCATTATC GTCCTCTATG	1080
CCAATAGTTT TGTGATGAAA AACCGTTCCA AGGAACTGGG TATATATGGC ATGTTAGGCT	1140
TGGAGAAGCG CCATCTAATC AGTATGACCT TTAAGGAGTT AGTGGTATTT GGGATTCTAA	1200
CTGTTGGAGC GGGTATCGGT ATTGGAGCCT TGTGACAA GTTAATTTTC GCTTTCCTGC	1260
TCAAATAAT GAAACTGAAG GTTGAGCTGG TTGCTACCTT CCAAATGAAT GTTGTCATTG	1320
CAGTACTTGT TGCTTTGGA TTGATTTTCC TAGGCCTCAT GTTCTGAAT GCTCTTCGAA	1380
TCGCCCCGAT GAATGCCCTC CAGCTCTCGC GTGAGAAAGC AAGCGGAGAG AAAAGAGGTC	1440
GCTTCCTACC TCTCCAAACG ATTCTTGGTT CCATAAGTTT AGGGATTGGC TATTATCTTG	1500
CCCTTACGGT AACCGATCCT CTTACAGCCC TAACAACCTT CTTCTAGCT GTTTTGCTGG	1560
TTATCTTTGG TACTTATCTA TTGTTTAATG CAGGGATTAC AGTCTTCCTA CAAATCTTAA	1620
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TCCGTATGAA GAAAAATGCG GTTGGACTAG CAACCATCGC TATTTTGTCA ACAATGGTTT	1740
TGGTAACCAT GTCAGCAGCG ACAAGCATTT TCAATTCCGC AGAAAGCTTT AAAAAAGTTC	1800
TAAATCCTCA TGATTTTGGG GTTTCAGGGC AAAATGTTGA AAAAGAAGAT TTGACAAAC	1860
TCTTGAGCCA GTTTGCAAGT GACAAAGGTT ATAGTGTCAG AGAGAAAGAA GTACTTCGTT	1920
ACAGTAACTT TGGTATTGCA AATCAAGAAG GAACCAAGTT AACTATTTTT GAAAAAGGAC	1980
AAAACCGTGT CCAACCCACA ACAGTTTTC TGGTATTTGA CAAAAAGAT TATGAAAATA	2040
TGACTGGTCA AAAACTGTCT CTATCAGGAA ATGAGGTCGG TCTCTTTGCC AAAAATGACG	2100
GACTGAAAGG ACAGAAAGCT CTAACCTTAA ATGATCATCA ATTTTCTGTC AAAGAAGAAT	2160
TTAATAAAGA TTTCATTGTG AACCATGTTT CAAATAAGTT TAATATCTTG ACTACTGATT	2220

595

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TCGCTGAGGA GTATGAAAAC TACCTCAATC AATTTAATGC TCAATTAGAC ACAGAAGGTA	2400
GCTATGTTTA TGGTAGCAAT CTAGCAGATG CTAGTTCTCA GATGAGTGCC CTCTTTGGTG	2460
GTGTCTTCTT TATCGGTATT TTCCTATCCA TTATCTTTAT GGTGCGAACT GTTCTGGTCA	2520
TCTACTACAA ACAAATTTCT GAAGGCTACG AAGACCGTGA ACGCTTTATT ATCTTGCAGA	2580
AAGTCGGTTT GGACCAAAG CAAATCAAGC AAACCATCAA CAAACAGGTT TTAAGTGT	2640
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597

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598

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601

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602

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(2) INFORMATION FOR SEQ ID NO: 73:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10223 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

CGTGCTATCG GTCTCAAAAC CAATCTGGTC GCTATGGTCA AATCCAGTTG GAAAATCCAT	60
TCTTCTTGGA GCCATCTGCT GGATTGCCAT CATCCTCACC ACTCTTGGA TGCAGACCCT	120
TATCGGCATT TTCTAATACT CTTGAAAAAT CTCTCAAAAC CACGTCAACG TCGCCTTGCC	180
GTAGGTATAT GTTACTGACT TCGTCAGTTC TATCTGCAAC CTCAAAACGG TGTTTGAGCT	240
GACTTCGTCA GTTCTATCTG CAACCTCAAA ACGGTGTTTT GAGCTGACTT CGTCAGTCGT	300
ATCTACAACC TCAAAACAGT GTTTTGAGCT GACTTCGTCA GTTCTATCTG CAACCTCAAA	360
ACAGTGTGTT GAGCAGCCCG TGGCTAGTTT CCTAGTTTGC TCTTTGATTT TCATTGAGTA	420
TAACACAAAA GGTAGCCCAT CAGCTACCTT TTTCTTATGC TTCCTCAATC AAGCGAGTAT	480
GTTCTCTCTT GATACAGCGA TTCATCAGTA TATCATCACA TCCACCATCA CGCAAAATCT	540
CTTTCGCTTC TAAACTTTCA AGTCCTAGCT GTGCCAAAAA AATCTTGGCA TCAGCTTTGA	600
GAAAATCAGC CGCCACATCG GGCAGAAATT CACTGCGACG ATAAACATTG ACAATATCTA	660
CAGGAAAAGG AATTTTCAGCG AGGCTAGCAT AAGCCTTTTC ACCCAAGATT TCGCCACCTG	720
CCGCCTTGGG ATTGACTGGG ATGATTTTAT AGCCCCGAGC CTGCATTTCC TTTGTTACTC	780
GATTGCTGGT TGTTTCTTCA CGGTCAGACA AACCACACAC AGCAAGGGTT TTAATCGTTG	840
CGAGATACTG ACGAATCAGC CCATCACTTG GATTGATAAA TTCTTGACTC ATAGAAATCC	900
TCCTTTTTC TCAATATAGC ACATTTTGAA AAGGTTTGCA GAATTATACT ACAAAAAAGG	960
AGGACTAGCC CCCTTTTAT TTAGCCTCGT ACCAGGTTGC CCCTTCATTC TCATCTGCGA	1020
TAAGAGGAAC ACTGAGTTGA ATGGCTTCTT CCATGGTTTG TTTACCAAT TTTTTCATCT	1080
CTACCAATTC AGATTTAGGC ACTTCAAGGA CGATTTTCATC GTGCACTTGT AACAGCATCT	1140

603

TAGTCTGATA ACCACCTGCA ACCAAGGCTT TATCCAGCTG AATCATGGCA ATCTTGAGAA	1200
TATCTGCTGC CGAACCTGG ATAGGTGAGT TGATAGCAGT TCGCTCCGCA AAACCACGAA	1260
TATTGAAGTT GCGCGAATTG ATATCTGGCA ACTCACGGCG ACGCTTAAAG AGGGTCTCTA	1320
CATAGCCCTT ATCACGCGCC TCCCGCACCA CTTTCATCCAT GTAGTTTTTA ATACCTGGAA	1380
AACGTTCAAA GTAGGTATCA ATGTAGGCTT TGGCTTCCTT ACGACTAATT CCCAAATTAT	1440
TAGACAAGCC AAAGTCTGAA ATCCCATAAA CCACTCCAAA GTTAACTGCC TTGGCATTGC	1500
GACGGTCGTT TGCAGTCACA TCATCAGGAC GCTCAATGCC AAAGACCCGC ATGGCTGTGC	1560
AAGTATGGAT ATCTGCCCCC TCTTGAAGG CCTTAATCAA GTGCTCATCC TTAGAAATAT	1620
GCGCCAAAAC GCGCAATTCA ATCTGTGAAT AGTCAGAGCT GAGTAGCACA CTATCCTCCC	1680
ACTCTGGCAC AAAAGCCTTC CGAATCAAGC GCCCCTGTTC CAATCGGGCA GGAATATTTT	1740
GCAAGTTTGG ATCCACACTA GACAAACGCC CGGTCTGGGT CAAATCCTGC ACATAGCGAG	1800
TATGAATCTT TCCATCAGCC AAAATCCAGT CCTGCAAGCC AATTACATAA GTAGATTGAA	1860
TCTTAGCAAT TTGACGGTAA TCCAGGATTT TCTTAACAAT CGGAGCAATA GGAGCGAGAC	1920
GCTCTAAAAC ATCCACTGCT GTCGAATAAC CTGTCTTGGT TTTCTTAGTG TATTCTAGAG	1980
GAAGTCCCAA TTTCTCAAAG AGAAGCACGC CCAACTGCTT AGGCGAGTTG ACATTAAACT	2040
CCTCACCAGC CAGCTCGTAA ATCTCTTGAG TCAGTTTTTC AATGACAAGC TCATTTTCAG	2100
CCTGCATCTC AAGCAAGGTC TCTTCTTGA CCATAATCCC AGCAATTTCC ATCTTGCGAA	2160
GGACAAAAGC CAGAGGTTGC TCCATATCAT AAAGAAGCTC TAATTGCCCA TTTTCGCTGA	2220
GTTTTTCAAG TAAATAGGC TCTGTTTCTA CCAAAACAGC AAGTTTACAA GCTAAGTGTT	2280
CCAAGAATTT CTCACGTTCA GGAATGGCCT TTTTAACACC CTTACCGTAG AAAGTTTCAT	2340
CATCAACCAA GTAAGTCTGA CCATAAAGAC TAGCGATGGT CGCAATTTCA TTGTCCTCCA	2400
CAGTCGAAAG GAGGTATTTA GCCAAACGGA TGTCAAAAGC AGGCGCCTGC AAATCCACAC	2460
CAAAACGTTG CAAAAGAACT TTAACCTTCT TAAAGTCATA AACTCTCAGA GATGTTTTTT	2520
CTAAGAAATC CTTGAAAATC GGGTCTTGCA ACAGCTCAAG CTTGTCTGTG GCATAGAGCT	2580
TATCCCCACA AGACCAGACA AATCCAACCA AATTATCCGT ATGGTAATTC TCACCAAAA	2640
GCTCAAAGTG GAAGATAGAC TCTTCACTCA GCATATCTTG ACTGATTTGG TCAACAATAG	2700
TAAATCCAA ACTCTCAGAC ACATCAGCTG ACGACACATT TAAAGCCTGC TTTAGCTGTT	2760
TGAAGCCCAT CTCATCGTAG AATTTCCCAA GATTTTCAAC ATCTGGACCA CTATAGACCA	2820
AGTCCTCTAA ACCAATCGCA ATCGGTGCCT TGGTATCAAT GGTCGCTAGT GTTTTAGACA	2880

604

AAAAGGCCTG TTCCTTGTC	TTGATGAGAT TTTCCCTTCAT	CTTAGAAGTC TTCATTCCAT	2940
CAATATTTTC ATAAATCCCC	TCAAGCGAAC CATGCTCCAG	CAAGAGCTTA ATACCCGTCT	3000
TTTCACCGAC TTTGGTCACC	CCAGGGATAT TATCCGACTT	ATCACCCTATG AGCGCCTTGA	3060
GATCGATAAA CTGAGCTGGT	GTGAGGCCCA TTTCTTCCAT	GAGGTAATCT GGCCTAAAGG	3120
CCTCAAATC AGCCACACCT	TTCTTGGAAT TTTCAACCAC	CGTATGCTCA TCCGTGAGCT	3180
GAATCAAATC CTTGTCCCA	CTGACAATAG TAATATCAA	ACCATCCTGC TCTGCTAGCT	3240
TATCCAGCGT CCCAATGATG	TCATCCGCCT CATACTGAGC	CAGATCATAG TGACGAATCC	3300
CCATATGATC CAGCAACTCA	CGAATGAAAG GAAATGCTC	ACGAAACTCA TCAGGAGTCT	3360
TGGCCCGACC ACCCTTATAG	TCCGCATACA TCTCTGTCCG	GAAGGTCGTC TTTCCCGCAT	3420
CAAAAGCCAC CAAATATGA	CTCGGCTCAA CCCGCTCAA	TAAATGACTC AACATCAACT	3480
GAAACCATA AATCGCATTG	GTATGCAAAC CAGCCACATT	CTTAAACCG TCCAACGCT	3540
GATACAGCGC AAAAAACGCC	CGAAAAGCTA CAGAAGACCC	ATCAATCAAT AATAATTTT	3600
TCTTATCCAT ACACCCATTA	TAAAGGAAAG AATCAAAAA	TACCATTGGG AAGAGCTAGA	3660
GCAAGTATTT TTCAAATTT	TTCCGAATAA ATAGATAGAG	CCAGAGAATT TAGTAAACCT	3720
AGATTTAAAA ATGTGCTATA	ATATAGTATA TTGAATCTAT	AATAGTACAC CTTGACTGCT	3780
AAAATATTT TATAAATTAA	TTTGACTTTC CTGATAGAGT	TATTCACATC TTATTTCAAC	3840
TCACTATAGA AGGAGGAATA	GGAGGATTCT CAGACATCCG	GGCATCAGCC CAACTAATGA	3900
TTTGATTGCT AAGAAAATAT	TCAGCAATCC AGAAATCACT	TGTCAATTTA TTCGCGATAT	3960
GCTGGACTTG CCAGCAAAAA	ATGTGACCAT TTTGGAGGGA	AGCGATATTG ACGTATTACT	4020
CTCCATGCCT TACTCGGTGC	AGGATTTTTA TACCAGTATA	GACGCTCTGG CGGAGTTGGA	4080
TAACGGTACT CAAGTAATTA	TTGAGATTCA AGTCCATCAT	CAGAATTTTT TCATCAATCA	4140
CTTGTGGGCT TACCTGTGCA	GTCAGGTTAA TCAAAATCTT	GAAAAAATTC GTCAGCGAGA	4200
AGGTGATACT CACTAGAGCT	ACAAACACAT CGCTCCTGTT	TACGCCATTG CTATCGTGGA	4260
TAGTAATTAT TTCTCAGATG	ACCTGGCTTT TCATAGCTTT	AGTATGCGCG AAGACACAAC	4320
AGGTGAGGTA TTGGCGATTA	CCAACAATGG ACAGGAAAAC	CATCTGGTTA AGATGGCATT	4380
CTTGGAATTA AAAAAACAG	AGAAACCAGC AAAGACAAGG	TTCGCAAGCC ATGGTTGGAG	4440
TTTTTCGGCA ACAAGCCCTT	TACCCAGCAA CCGCAACGAG	CCATTACCCA AGCAAATCAA	4500
CTGCTGGACT ACAAGAGCTG	GTCCGAGGAG GACAGGAAAA	TGTTTAGTCA ACTACATATG	4560
CGAGAAGAAC AAGTCTTGTT	AGCACAGGAC TATGCCTTGG	AAACTGCTAG GGCTGAAGGC	4620
CTTGAACAAG GACTAGAGCG	TGGGAAAGTT GAAGGAAGGG	CAGAAAGGAA ACTTTTGGCC	4680

605

TTCTTAGACA TAGTACGCCA AGGTCCTCTG ACTTCTGAGG TTGCCAGCCA GCAATTAGGT	4740
ATGTCAGTAT CTGAATTGTA GGCAGCTGTTG TAAAATGGCT CCATAATATC CATAGTGGGT	4800
AAATCCCCTA TGGATATTAT GGAGCCTATT TTGTGTAGAA AAAAAGTCCC ATATGACCTA	4860
TAATGAAAAG CGACAAAACA ACTCATTAGA AAGAATCATA TGGAACAAAT ACATTTTATC	4920
ACAAAATTAC TAGACATTAA AGACCCTAAT GTCCAGATTT TAAACATCAT CAATAAGGAT	4980
ACACACAAGG AAATCATCGC CAAACTGGAC TACGACGCC CATCTTGCCC TGAGTGCAGA	5040
AACCAATTGA AGAAATATGA CTTTCAAAAA CCTTCTAAAA TTCCTTATCT TGAAACGACT	5100
GGTATGCTA CAAGAATTCT CCTTAGAAAG CGTCGATTCA AGTGCTATCA CTGTTCAAAA	5160
ATGATGGTCG CTGAACTTC TGATGACGTA CAGTCATATT TCTTCTCTTT TTATTATATC	5220
ACAGTTTAA ATCTAGCTTT ACTAGATTCA CCGCTACTAT CTATTTATTC GGAAAAAGA	5280
CGAAAAACC TGAGAATCAT CTCAGGCTTG GTCATTAAAT TTTTCTCTCA ATATCGAAAA	5340
GTGGAGAAAG TGGTCGTTT TCATGAATAC GTACGATAGC ATCCCCTAGG AGATGAGCGA	5400
TTGAAATCTG CTCATCTTA TCAATCAAAC GCTCTTCTGG CAGATAGATG GTATCCAAAA	5460
CAACCAATTT CTTAATAGCT GATTTTGGGA TATTGTCCGT AGCAGGACCA GAAAGAACTG	5520
GGTGCCTACA GCTTGCATAG ACTTCAACAG CACCAGCTTC CGCAAGAGCA TCTGCCGAT	5580
GACAAATCGT TCCAGCGTA TCAATCATAT CATCAATCAA GATACAAGTC TTGCCTTCAA	5640
CCTTACCGAT GATATTGATA ACTTCACTAG TATTGATCTT ATCAACGCTA CGACGTTTAT	5700
CAATAATAGC GATAGATGTT TTCAAAAATT CTGCCAATT ACGAGCACGA GTCACCCCTC	5760
CATGGTCCGG GCTGACAACC ACATAGTCAG AACCAACCAT ACCACGACGC TCAAAATAAT	5820
CTGCAATCAG AGGAGCACCC ATCAAATGAT CCACAGGAAT ATCAAAGAAT CCTTGAATTT	5880
GCGCAGCATG CAAGTCGATG GTCAATAAAC GATCCACTCC AGCTACTTCA AGCATATTTG	5940
CGACAAGTTT TGAAGTGATT GGCTCAGCG CTCTCGCCTT TCTATCCTGA CGTGCATACC	6000
CATAGTAAGG CATGACAACA TTGACAGATT CTGCACTCGC ACGCTTCAAA GCATCTACCA	6060
TAATCAAAAT TTCAAGCAGA TTGTCATTTA CAGGCGAACT AGTTGATTGT AAGATAAAGA	6120
CGTGTTTCCC ACGGATTGAT TCTTCAATGT TGACCTGAAT CTCTCCATCT GAAAATTGGC	6180
GAACACTTGA TTTCCCAAC TCTATCCCAA TCTCCTGCGC CACACGTTCT GCCAATTCTT	6240
TATTAGAAGA AAGGGCAAAC AGCTTTAAAT CAGAAAAAGA CATGATTTC TCCGGTATAT	6300
ATGTATAACT TGTGCTTTT ACAAGATTTT CCATCTACCA TTGTAGCGCT TTTTGCACTA	6360
TTTTTCAATC AAAAATAAAA GAAGGGCACC ATATTTGTAC CCTTGATCA TTCTTTTGAA	6420

606

AAATATTCTA GGTCAACAAC TCATTGTGTT TCTCAACAAA GCAATAAGCA TGATAAAAAC	6480
CATAGAGAGC AATAGCCGTA ACCACTGGAA TCGCTAAAGG CAACTCTGTT TCCAACTCCA	6540
CAAAAGGAGA GTTAAACAAG AAGTGAGTTC CCAAGGCTAA ACCTAGAAAA ATAAGGCCCT	6600
GTTTCTTGCC AACCTTCTGT CCTTTATAGG CTCTGTAAAG CAAGTAAACA CCTACTACAG	6660
CTAGACCTGA AAAAGTCCAG TGAGAGGCAA TTCCTGAGAT GATACGCTCT AAAATTCGCG	6720
AAATAGTAAA GTCAAAGCCC TCTGGCAAAT CCGTACGAAT ATAACCAATA TCCTTAATCA	6780
TTTGGAATCC CAAACCGGAA GCAATTCCAA GTAAAAACAA AGATTTTAAT TTTCGCACAG	6840
GAATCAAAGC CAAAACAAAA ACAAGTGACA ATAATTTCAA GGGTTCTTCT ACCAAAGGAG	6900
CCGCAATAGC ACTTTCAAAG GCATTTAAAA ATGGACTATC TGGGAAAAGA ACCCCCAGTA	6960
AATCATGGAT ATAAGTATTA GCAAACTAG ACAACCAGCC TGAAAGGAAC ATCCCTCCCA	7020
ATAAGACAG AATCAAAACC TTCTTTGGCA ATTCCCATT TTCCCAATAC GGAAGAGAAA	7080
ATAAGAGCC GGAATCATGT AAAAGAGAGC TAGAAAGATA GAAACTCCCA TTAGTCCATA	7140
TTCCGCACCT GACCTCGAAC CGTCCGTATA GTAGATGGTT TCATCTGTA AACCAATACA	7200
TAGCAATAAA ATAAAAATAA ATAAAAATTT GCTTTTCTTC ATACACTTTC TTTCTAAATG	7260
AAGTATTTAT AATTCTACGA CTGTCATACT TCCTGTATCA ACATTGTAAA TGGCACCAGA	7320
GATAATGACA TCGTCTGGTA TTAGGGGAGA CTCGATAAGC AGTTGCATAT CCTCGCGTAC	7380
ACTCTCTTCT ATATCTTGA AGGGCAAGAA GTCCTGGTCT GACACATCGA CACCCAATTC	7440
TTCTTTCAA TACTCTGAA AAGGTTCAAT TTCAAAGGTC TGAGCACCAC AGTCTGTATG	7500
ATGCAATACC ACAATTTCTC TTGTCCCAT TTGTTGCTGG GAAATAACTA GAGAACGAAT	7560
CATATCCTCA GTCACTCGAC CACCTGCATT CCGCAAAATA TGAGCATCCC CAAGTGCCAA	7620
ACCTAGAGCT TCGCAACGT GCAAACGTGA GTCCATACAG GTCACAAATGG CTA CTCTGCT	7680
TTTAGGTTTA AGTGGCAGAT TTAAGTCCCT ATGTAGGGCA ACATAAGCCT GATTGGCTTG	7740
CATAAAGTGT TCAAAATACG ACACGATTCC CTCCTTGAAA ATTTGATAGT CAAATATTTC	7800
TCCTATCTTA TCATTTTAA GAGAATTTGT CACGATTAT GCAAAGACCT TTTTCAAGAC	7860
TTCTGAATC GTTGTACGC CAATGACCTG AATTTCTTA GGCAGAGTGA TTCCTGTCAA	7920
GGAATTCCTTA GGTACATAAA TCTTAGTAAA GCCCAGTTTA GCAGCTTCGT TGATGCGTTG	7980
CTCAATACGA TTCACGCGCC GAATCTCTCC TGTCAAGCCC AGTTCTCCGA CAAAACATTC	8040
CTGAGGATTA GTTGCTTGT CTTGTAGCT CGAAGCAATA GCAACTGCAA CAGCCAAGTC	8100
AATCGCAGGT TCATCCAATT TAACACCACC AGCAGATTG AGATAGGCAT CCTGATTTTG	8160
CAAGAGAAGC CTGCCCCGTT TTTCCAAAAC AGCCATAATC AAGCTAGCAC GGTAAAAATC	8220

607

AAGTCCTGTC GTAGTACGCT TGGCATTTC	AAACATGGTC GGTGTTACCA AAGCCTGAAC	8280
CTCCGCCAAA ATCGGACGCG TCCCTTCCAT	GGTTACAACG ATGGAGGAAC CAGTCGCCCC	8340
ATCCAAACGC TCTTCTAGGA AAACCTGACT	CGGATTGAGT ACCTCAACCA AGCCGCCCGA	8400
CTGCATCTCA AAAATCCCAA TCTCATTAGT	GGAACCAAAA CGATTTTGA CCGCTCTCAA	8460
AATACGAAAG GTGTGGTGAC GCTCCCTTC	AAAGTAAAGC ACCGTATCCA CCATATGCTC	8520
CAACATACGA GGCCAGCCA AGGTTCCTTC	TTTGGTCACA TGACCTACGA TAAAGATGGC	8580
AATGTTATTG GTCTTGGCCA ACTGCATGAG	TTCAGCGGTC ACTTCACGCA CCTGAGAAAC	8640
AGACCCCTGC ACCCTGAAA TCTCAGGAGA	CATGATGGTC TGGATGGAAT CAATAATGAG	8700
AAAGTCTGGC TGGATACGCT CCACTTCTGC	ACGAACACTC TGCATATTGG TCTCTGCATA	8760
GAGATAAAAC TCACTATCAA TATCACCTAA	GCGCTCTGCA CGTAGTTTAA TCTGCTGGGC	8820
AGACTCCTCC CCACTGACAT AGAGAACTGT	CCCCACTTGG GACAACTGGG TTGAGACTTG	8880
TAGGAGAAGA GTTGATTTC CAATCCCAGG	ATCCCCACCG ATAAGGACGA GACTTCCTGG	8940
TACCACTCCG CCTCCAAGCA CACGGTTGAA	TTCCTCCATC TCCGTCTTGG TTCGATTGAC	9000
ATTGATGGAA GTCACCTCAG CTAGTTTCAT	GGGCTTGTTT TTCTCACCTG TCAAGGACAC	9060
ACGCGCATTC TTAACCTCG CAACCTCAAC	CTCTTCCACA AAAGAAGACC AAGACCCACA	9120
GTGCGGCAAA CGTCCAGAT ATTTAGGGGA	ATTATACCCA CAATTTTGAC ATACAAATGT	9180
CGCTTTTTC TTTGCGATGA CAAACCTCTT	TCTATATCTC TAACTCACAC TCAATCACTT	9240
GGCAAAAATC AATCTTCTCA TTTGGCACAA	ACTGGCGCAT GAGCATTCGA TGAGCAACAA	9300
CTACCACAGT CTGATGTCT CGATACTTAG	ACATACATTC TAGAAACCGA GACTTCATTT	9360
CCGTAGCTGT CTCATATTGA ATAGGACTAT	TAGGAAGCAA CTCCTCCCTG TTTTCTAAAA	9420
ACAGTCTTCT AGCTGTTTCA AAGTTTCTA	TTCCTGTTTT ATAGACCTGC CATTCATGTA	9480
ATAAAGGCTC TACTCTTAAA GGAAGACCCG	TAGCACAGAC CACATACGAA GCCGTTTCTA	9540
AAGCTCTTGT GACTGCAGAA GATACGATTA	TTTCAGCTGA CGAGAGTAAA GGATTTTTC	9600
TCAATTTCTG GACTTGCTGC CGTCCCATCT	CAGACAAGGG TGCCAAATCT ATCCCAAATC	9660
CTATATAAGA ACGTCTCTCT AACTCACGGT	AATCTGGCTC CCCATGACGT ACAAAGATAA	9720
TCTTCATTCT AGTGCCCTGT CGATCCAAAT	CCACCAGTTC GAAGCCATC AGCTGCATCT	9780
CCATCTGCAA TTAAGAAAGT AGCAAAAACA	GCCTGGACAA TACGCTCCCC AACTTCAAGA	9840
ACAACCTCTT GGTCTGTGAT ATTCTTCATC	TGCGCAAAAA TATGCCCTTC ATTCCAGGA	9900
TTTCCATAAT AATCCCCATC AATGACTCCA	ACTGAGTTAA TTAACCAAA GCCCTTCTTA	9960

608

CGAGGATTG AAGAACGATC ATAGAGGTAG AGAACCTCAG TCGGCTGCAT ATAAGCCTTA	10020
ACCCCTGTCG GAACCAAGAC AATCTCTCCT GGCGCAACAA CTGTACGCAC AGCAACCTTT	10080
AAGTCGTAAC CAGTCGCATG CGCTGTCTCA CGCTTGGGCA ATAAATTTTC ATCTGTAAAA	10140
CTCGAAACCA ATTCAAAACC ACGAATTTTC ATAATTTTCT CTTTCTATT ATCATTATT	10200
CTAGATTATT CTATACTTAT TTA	10223

(2) INFORMATION FOR SEQ ID NO: 74:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 16535 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

TGGTTCGTG CTTATCGGCG CCTGTCTTG CTTGCCATGG CTACACCAAC TATCTCATCC	60
GACGAAAGTA CACCAACCAC TAACGAACCC AACAACAGAA ATACAACCAC CCTTGCCCAA	120
CCTCTTACTG ATACAGCAGC TGGCTCTGGT AAGAACGAAA GTGATATTTC TTCACCTGGA	180
AATGCAAACG CTTCCCTAGA GAAAACAGAA GAAAAACCTG CTGCAAGCCC AGCCGATCCA	240
GCACCACAAA CTGGACAAGA TCGTTCAAGT GAGCCAATA CTTCTACTAG TCCAGTAACA	300
ACTGAACTA AGGCAGAAGA GCCCATCGAA GATAACTACT TCCGTATCCA TGTCAAAAAA	360
CTTCCTGAAG AAAACAAGGA TGCTCAAGGA CTATGGACTT GGGACGATGT TGAAAAACCA	420
TCTGAAAACT GGCCAAACGG AGCTTTGTCC TTCAAGGATG CCAAGAAAGA TGACTACGGC	480
TATTACCTAG ATGTCAAATT AAAGGGAGAA CAAGCCAAGA AAATTAGCTT CCTCATCAAC	540
AATACAGCTG GAAAAAATCT AACCGGCGAT AAATCTGTAG AAAAATACT TCCAAAAATG	600
AACGAAGCTT GGTTAGACCA AGATTACAAG GTTTTCTCTT ACGAGCCACA GCCTGCAGGA	660
ACTGTTTCGCG TCAACTACTA CCGCACAGAT GGCAACTATG ACAAGAAATC TCTCTGGTAC	720
TGGGGAGATG TGAAAAATCC AAGTAGCGCT CAATGGCCTG ACGGAACAGA CTTTACGGCT	780
ACAGGCAAAT ATGGCCGCTA TATCGACATT CCTCTTAATG AAGCCGCAAG AGAATTGGA	840
TTTTTATTAC TAGATGAGAG CAAACAAGGA GACGACGTGA AAATCCGTAA AGAAAATTAT	900
AAGTTCACAG ATTTGAAAAA TCATAGCCAA ATTTCTCTAA AAGACGATGA TGAATCGATT	960
TACACAAATC CATACTATGT CCATGATATC CGTATGACAG GAGCCCAACA CGTAGGCACT	1020
TCTAGCATTG AAAGTAGCTT TTCAACACTT GTCGGTGCTA AAAAAGAAGA TATCCTCAA	1080
CACTCCAACA TCACTAATCA CCTAGGAAAC AAGGTAATA TTACCGATGT TGCAATCGAT	1140

GAAGCTGGTA AGAAAGTGAC CTACAGCGGA GATTTCCTCTG ACACAAAACA TCCTTATACT	1200
GTTAGCTACA ATTCCGACCA ATTCCTACC AAAACAAGCT GGCGCCTGAA AGATGAGACA	1260
TACAGCTATG ATGGCAAACCT GGGAGCTGAC CTAAGAAG AAGGAAAACA AGTTGATTGTG	1320
ACCCTTTGGT CACCAAGTGC TGATAAGGTT TCTGTTGTTG TCTACGACAA GAATGACCCT	1380
GACAAAGTAG TTGGAAGTGT CGCTCTTGAA AAAGGGGAAA GAGGAAGTTG GAAACAAACT	1440
CTAGACAGCA CAAACAAACT CGGAATCACA GATTTCCTG GCTACTATTA TCAATACCAA	1500
ATCGAGCGTC AAGGTAAAAC TGTTCTTGCA CTCGATCCTT ACGCTAAATC TCTTGCTGCT	1560
TGGAATAGCG ACGATTCCAA GATTGACGAT GCCCATAAAG TGGCTAAAGC GCCTTTGTGA	1620
GATCCAGCTA AACTCGGACC TCAAGACTTG ACTTATGGTA AGATTACAA TTTCAGACT	1680
CGTGAAGACG CCGTTATCTA CGAAGCTCAT GTGCGTGATT TCACTTCAGA TCCTGCCATT	1740
GCAAAAGACT TGACCAAAAC ATTTGGGACT TTTGAAGCCT TCATTGAAAA ACTAGACTAT	1800
CTCAAAGACT TGGGTGTAAC CCATATCCAG CTCCTTCCAG TCTTGCTTTA CTACTTTGTC	1860
AATGAATTGA AAAACCATGA ACGCTTGTCT GACTACGCTT CAAGCAACAG CAACTACAAC	1920
TGGGGATATG ACCCTCAAAA CTACTTCTCC TTGACTGGTA TGTACTCAAG CGATCCTAAG	1980
AATCCAGAAA AACGAATCGC AGAATTTAAA AACCTCATCA ACGAAATCCA CAAACGTGGT	2040
ATGGGAGCTA TCCTAGATGT CGTTTATAAC CACACAGCCA AAGTCGATCT CTTTGAAGAT	2100
TTGGAACCAA ACTACTACCA CTTTATGGAT GCCGATGGCA CACCTCGAAC TAGCTTTGGT	2160
GGTGGACGCT TGGGGACAAC CCACCATATG ACCAAACGGC TCCTAATTGA CTCTATCAAA	2220
TACCTAGTTG ATACCTACAA AGTGGATGGC TTCCGTTTCG ATATGATGGG AGACCATGAC	2280
GCCGCTTCTA TCGAAGAAGC TTACAAGGCT GCACGCGCCC TCAATCCAAA CCTCATCATG	2340
CTTGGTGAAG GTTGGAGAAC CTATGCCGGT GATGAAAACA TGCCTACTAA AGCTGCTGAC	2400
CAAGATTGGA TGAAACATAC CGATACTGTC GCTGTCTTTT CAGATGACAT CCGTAACAAC	2460
CTCAAATCTG GTTATCCAAA CGAAGGTCAA CCTGCCTTTA TCACAGGTGG CAAGCGTGAT	2520
GTCAACACCA TCTTTAAAAA TCTCATTGCT CAACCAACTA ACTTTGAAGC TGACAGCCCT	2580
GGAGATGTCA TCCAATACAT CGCAGCCCAT GATAACTTGA CCCTCTTTGA CATCATTGCC	2640
CAGTCTATCA AAAAAGACCC AAGCAAGGCT GAGAACTATG CTGAAATCCA CCGTCGTTTA	2700
CGACTTGGAA ATCTCATGGT CTTGACAGCT CAAGGAAGTC CATTTATCCA CTCCGGTCAG	2760
GAATATGGAC GTACTAAACA ATTCCGTGAC CCAGCCTACA AGACTCCAGT AGCAGAGGAT	2820
AAGGTTCCAA ACAAATCTCA CTTGTTGCGT GATAAGGACG GCAACCCATT TGAATATCCT	2880

610

TACTTCATCC ATGACTCTTA CGATTCTAGT GATGCAGTCA ACAAGTTTGA CTGGACTAAG	2940
GCTACAGATG GTAAAGCTTA TCCTGAAAAT GTCAGAGGCC GTGACTATAT GAAAGGTTTG	3000
ATTGCCCTTC GTCAATCTAC AGATGCCTTC CGACTTAAGA GTCTTCAAGA TATCAAAGAC	3060
CGTGCCACC TCATCACTGT CCCAGGCCAA AATGGTGTGG AAAAAGAGGA TGTAGTGATT	3120
GGCTACCAAA TCACTGCTCC AAACGCGGAT ATCTACGCAG TCTTTGTCAA TGCGGATGAA	3180
AAAGCTCGCG AATTTAATTT GGGAACTGCC TTTGCACATC TAAGAAATGC GGAAGTTTGT	3240
GCAGATGAAA ACCAAGCAGG ACCAGTCGGA ATTGCCAACC CGAAAGGACT TGAATGGACT	3300
GAAAAAGGCT TGAAATTGAA TGCCCTTACA GCTACTGTTC TTCGAGTCTC TCAAAATGGA	3360
ACTAGCCATG AGTCAACTGC AGAAGAGAAA CCAGACTCAA CCCCTTCCAA GCCTGAACAT	3420
CAAAATGAAG CTTCTCACCC TGCACATCAA GACCCAGCTC CAGAAGCTAG ACCTGATTCT	3480
ACTAAACCAG ATGCCAAAGT AGCTGATGCG GAAAATAAAC CTAGCCAAGC TACAGCTGAT	3540
TCACAAGCTG AACAACCAGC ACAAGAAGCA CAAGCATCAT CTGTAAAAGA AGCGGTTTGA	3600
AACGAATCGG TAGAAAACCT TAGCAAGGAA AATATACCTG CAACCCAGC TAAACAAGCT	3660
GAATTTCCAA ATACAGGAAT CAAAAACGAA AACAACTCC TATTTGCAGG AATCAGCCTC	3720
CTTGCGCTCC TTGGTCTCGG TTTCTTACTA AAAAATAAAA AAGAGAACTA AACTAGCCCT	3780
CCTATAGAAA AATCCCCCAA GCATTATAGC TCGGGGGATT AATTTTGTGA CAATATTGT	3840
TGTCCTAATA AACTTGATTA GGATTTTFTA TTAAGCCTCT TTCATAGCAA AATAAGCTCG	3900
TACTTTGGGT GCAACTTGTG TTCCGAAGAG TTCAATAGCT CTCAGAACCT GGTATGAGG	3960
CATAGAACCA AGCGGTAGAT GAAGCATGAA GCGGTCCAAT CCTAAATCCT CTATCATGCG	4020
AATCAATTTT TCGGCCACCT GATCTGGATT GCCAACAAC ATGGCGCCAT TTGGCCCTAC	4080
CTGCTCCAAA TATGCTCAT AACGCAATTC CTGCCAGTGC GGACGGTCTT TGGAATAGC	4140
ATCCACCACT TGCTTAGTCG GATGGAAATA ATCTTTCACC GCCTGCTCAC CATCTCCGC	4200
AATCCACCCC CAAGAATGGG CTCCCCTTT CAAGTCTTTG TCAGCATGGC CCCTTCGCTT	4260
CCAATCTCAC GATAAGCCTG AATCAACTTT TTAATAAAC GTGGATTACC ACCAATAATA	4320
GCATATACAA TCGTAGACC AGCCTGAGCA ATCTTCACTG TTGATTGAC ATGACCACCT	4380
GTAGCTATCC ACAAGGGCAA TTTGTCCTGA ACTGGACGAG GATAAACTTC TTTACCAGCA	4440
ATCGTTTGAG TCAATCGACC TTGCCAGTCT AACTTGGTCT TTTCAATGAC TAACTGAAGC	4500
AAGTCTAATT TCTCATCAA AAGAGAGTCG TAGTCTTTCA AGTCATAACC AAACAGAGGG	4560
AAAGATCCG TGAAAGAGCC CCTTCCAGCC ATAATCTCCG ATCGTCCATT TGACAAAGCA	4620
TCGATAGTGG CATACTGTTG GAACAAACGA ATCGGGTCCA TGCTTGACAG AATGCTGACT	4680

611

GCACTGGTCA AACGGATTTT CTTGGTATTG ACTGCCCCAG CGGCCAGAAC AATCTCTGGG	4740
GCTGATACTG CAAAATCCGC CCGATGGTGC TCACCAATCC CATATACATC CAAACCAACC	4800
TTGTCAGCCA GCTCAATCTC TGCCACCAAC TGGCGAATGC GTTCAGCATG ACTGTAAGTT	4860
TGTCCAGTCC CTTCAAGCTC CGTTATTTCC CCAAATGTTG AAATTCCTAA TTCTACCATT	4920
GTGATTCTCC TTATCTATCT CTGTACTTCA ATTTGAAAAA TTATTCTAAC ACGAATCTTG	4980
AGTACAAGCA ACCGATTTGC TCATTAGAAA AAGCCTAGAT AACTAGACTT TTTTAGCTTA	5040
TTCTACCGTT ACTGACTTGG CAAGGTTACG TGGTTTGTCC ACATCGAGGC CACGGTGGAG	5100
GGTTGCAAAG TAAGCGACTA ATTGCGTTGG TACGACCAT T GAAATTGGTG AGAGGTATGG	5160
ATGTACGGTC GTAAGGACGA TATCGTCGGT ATCTTTGGCT ACATTCTCTT CTGCGATAGT	5220
GAGGACTTTG GCACCACGGG CTGCGACCTC TTGGATATTT CCACGAGTAT GATTGGCAAG	5280
AACTGGATCT GACAAGAGAG CAAAAACAGG CGTTCCTTCT TCAATCAAGG CAATGGTTCC	5340
GTGCTTGAGT TCTCTGCAG CAAAGCCTTC ACACTGGATA TAAGAAATCT CTTTGAGTTT	5400
GAGACTTGCT TCCATGGCTA CGTAGTAATC TTGACCACGT CCGATGTAAG AGGCGTTACG	5460
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AAGTTCAACT GGTGTATCTG TCAATTCTTC CAACATTTTC TTAGAAGCAA ATCCTGCATG	5940
GTAAGATGTT CCAGCTGCAA GGATGTAGAT GCGGTCTGCG TCTTGAACAG CCTTAATGAT	6000
ATCTGGGTCT ACGACAACCT GACCAGCCTC ATCTGTGTAG GCTTGGATGA GTTTCCGCAT	6060
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ATCTGACAAG TCAAGTTCAG CAGTGTAGCT AGCACGCTCA CGACGATTT CATCATAGTC	6180
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AAGACCAATC AAAAGTGGTG ATTTATTTTT AGCTACGTAG ATGACTTCAG GATCTGTGA	6360
GTCAACCAAG GCAAAGGCAT AAGAACCACG GATGATGTGA AGGGCTTTTT TGAAGGCTTC	6420

612

AAGAACTGAG AGCCCTTCTT CTTCGCAAA TTTTCCAATC AAATGAACGG CTATTTTCAGT	6480
ATCTGTCTGC CCCTTGAAGT GGTGACCTGC AAGGTATTCT TCCTTGATTT CAAGATAGTT	6540
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CTCAACACCA GCTGTCTTGG CAGACAATTC TGCAATACGA CCAACCGCCT TCACCAAATG	6720
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ACCATTCTCA GTCAACATCC ACTCAATATT GCCATAATTT TCCTTGATAT TTTGGGCGAT	7380
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613

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CATCCCATGA TGATTGGCAC AGCACGACCA TTTTCATCCA AGACATCTGC TCCCATGCTT	9000
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TTAATCGTTT GTTCTTCTGG AACATTGAGG AAGGCTGCAA CTTTCATCAAT TGATTTAACA	9480
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TACTCATCAT AAACACTATC CAACTATCA TAGTTAGCGT GGAAACTATA AGCATCCTTC	9900
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614

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GCTGAAACTT GCGCAACATA ACCAGCACGC AACATAAGAG CATGGCTGAT AACTTGAGCA	10320
TCGCTTGCCA TTTCCGGAAG CGTTGGGATA GGCATTTTAC TTTGTTTCAT AATATTCCTC	10380
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CCTGTCTTGA TTTCAGTTGT ATCATCACCC CAACCGCCA TGCGGACATA GCCACCCAGA	11460
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CCGAACCTCGT GCACCACTAC AATAATCCCG AAAACCAGAA TAAAGTTAA AATTCCGAGC	11640
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AGCAACATAC TATCGAAACG ATCCAAAACA CCACCATGTC CAGGGATAAA TTTCCAGAA	11760

615

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CTGTCAACTA TCATAAGGAT AATGGTTACT AAAATTGCTC CTAAAATACC ACCCAAGGCA	11940
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CCAACAAGAT AGGCACCACT GTCTGTGCGC CAGACGATAC ACAAGGCTAA GAGAGCCTTG	12060
TCCAAACCTG CAACACGAGC ATCTAGTAAA GCATTAAATC CAAAGCCAC GTAGAAGCTC	12120
ATAGCAAGAG GGAAAACCGC ATCCTCAATC GTATAAGACT TGCTAAAAAC GGTGTTTCCT	12180
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AGGTAATTCT CCAAGGGAAT GGTCAATGCA AAGGTTGCAA AGAGGGTCAA GAGGCCCTCC	12300
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TACACTCCCT AGCTTAAAGT TTCCTTAAGT ATTTTAAAA ATCAAATTTT TCCATTCTC	13500

616

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GAAATGAGGA GTTGGACGAA CTGAAAAATT CAAAATATCC TCCAAACCAT AAGGTACATA	13620
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TAGCGGCTTC GATAAAGATC TGAAGTTGAT CCTTAACCTT ATCTGACCA ATATATTAC	14940
GTAAATACTG AGGACGGAGC GTGCGTTCTA CTAATCCTC ATCACCCTC ATCTCATTAT	15000
CTAAATTTCT ACTCATGGCT CTATTATATC AAAAAAACA AGCCACAAAC AAAAAAGCCA	15060
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CACCGCCTAC GAAAGGAGGT GAGATAGCCC ATGATGGAAT TAGTACTCAA AACTATTATC	15180
GGACCAATTG TGGTCGGTGT CGTCTTCGT ATAGTCGATA AATGGCTAAA CAAGGACAAA	15240
TAGTGTCAA AAAGACCTCA AGCTTATTG GTCGTGAGCT TGGGCTCTT TCTAGCCTAT	15300

617

GATATAGAAC TAGTACTCAA TTCCTTTTTA TTATCCCATTA GTTCACGAAT TTTGTCAAAA 15360
 CTTTACATTT TCTTCAACCG CTGTACGACA AGACGGTTAA GATTAAGAGA ACGTTAGGGA 15420
 TTCTATCAAT TTCATAGAAA TTTTGATTTC GTAAACGAAG AGACAATCTT ACATGTCCT 15480
 TCTCATTTAA TACGCCACTA CTAGACAAGC AAAATCATT TACAGTAGT TCCAGTCCTT 15540
 CAATTAACAG TCACCTACAA TCAAATTGAG TTTGAACTAG CTGAAGCGAC CACAGACCTA 15600
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 ATTTAACTT AAATCTCCGA AACTATCTT GATGTGGACG GCTTTTCCAA CCATCTGATA 16440
 ATTTCCAGAA CCCAAAACCT AGATATTTC AACTCTCTGG TCATGTTTAC TTTCAAACCT 16500
 AGCCGTTTCT CAATAACGA CTGACTGAAT ACATC 16535

(2) INFORMATION FOR SEQ ID NO: 75:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8136 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

CCAGAGCGTT GCGTCCGAAA GTCTATCCAG ACACGGCTCT TAAAAACAA AAGGAGAAAT 60
 GATGCATACT TATTTGCAAA AGAAAATGA AATATCAAA ACAACCCTAG GTGAAATGTC 120

618

AGGTGGTTAC CGTCGTATGG TTGCGGCTAT GGCTGATTTA GGATTTTCAG GAACTATGAA	180
GGCTATCTGG GATGACCTCT TTGCCCATCG TAGTTTGGCC CAGTGGATT TTTGCTGGT	240
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TCTAGTTTGG ATTTATCAGG CACAGTTTAA GAAGGAAAAG CAGGAGTTTG TCGCGCGTAA	540
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TGGCTTCATT TATCAGTCTA TTGGTGCCAA TCGTCCCTAT CGTGATTCAA TCACAGATGC	660
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GAAATATCTA ATTTATCTCA TTAACAGTCT AGTTGGTTGG TATCAATGGA GCAAGGCAGC	840
TAAGCAGAAT ACTGATTTAC TTAAGTAGGA AAAGATGTTT GAAAGTGCTG TTTTGAGATT	900
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GGTCTCTTTT TGTGTTGAA AAGATAAAAA ACTCAGTAAC CTAGAAATAA GACAACTGAA	1020
GCTTTACTCT ATATTCAATT TTTAGGAATG AGAAGGTCTA GATAAAATTG GACAACTTCC	1080
TGGTCTGTGA AATCTTGACC TTTTTTGAGC CACCAGGTCA ATGTCTCGAT AAAGTTGGAC	1140
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TGGGCGAGGT AGTCTCTCGT TGAAATGGCT TGCTCTCTTT CAAAAGATG ATGGAAGAGG	1380
TAGCGGCAGA GCTGGTCCAG AAGAAGCTCC TTAATCTCAT AGTGACAGTA AAAGGTGGAT	1440
CGTCCACAT CTGCGAGATC AATGATATCC TGAACAGTAG TGGCCTCGTA GCCCTTAGCA	1500
TTCAAAAGTT GTATAAAAGC TTGATAGATG GCTTTTTTGG TTTTGCTGAT ACGGCGGTCA	1560
ATGTTAGTCA TATGGACACT TAAGGCAAAT TGTTCAGAAC TGAATAAAGC TGACGTTTGT	1620
CTTCTATCCT TTCTTTGAGT TTTAGTGGAT AATGATAATG AACAAGGTCT TCATAAATCT	1680
ATTATAACAA AGGAATGAGA AATATGAAGG CAAAATATGC TGTTTGGGTG GCTTTTTTCT	1740
TAAATTTGAC TTATGCCATT GTTGAGTTTA TTGCAGGTGG AGTATTTGGT TCTAGCGCTG	1800
TTCTTGCTGA CTCTGTGCAT GACTTGGGAG ATGCGATTGC AATTGGAATA TCAGCTTTTC	1860
TAGAAACAAT CTCCAATCGT GAAGAAGACA ATCAGTACAC CTTGGGCTAT AAGCGGTTTA	1920

619

GCCTGCTAGG AGCCTTGGTA ACAGCTGTGA TTCTCGTAAC GGGCTCTGTT CTAGTCATTT	1980
TGGAAAAATGT CACGAAGATT TTGCATCCGC AACCAGTCAA TGATGAGGGG ATTCTCTGGT	2040
TAGGAATTAT TCCGATTACT ATCAATCTGT TAGCGAGTCT GGTGGTTGGT AAGGGAAAGA	2100
CAAAGAATGA GTCTATTCTG AGTCTGCATT TTCTGGAAGA TACGCTAGGG TGGGTAGCTG	2160
TTATCCTGAT GCGGATTGTT CTTTCGATTTA CGGACTGGTA TATCCTAGAT CCTCTTTTGT	2220
CCCTTGTCAT TTCTTTCTTT ATTCTTTCAA AAGCCCTTCC ACGTTTTTGG TCTACACTCA	2280
AGATTTTCTT GGATGCTGTG CCAGAAGGTC TTGATATCAA GCAAGTAAAG AGTGGCCTGG	2340
AGCGATTGGA CAATGTGGCC AGCCTTAATC AGCTTAATCT CTGGACTATG GATGCTTTGG	2400
AAAAAATGC CATTGTCCAT GTTTGTCTAA AAGAAATGGA ACATATGGAA ACTTGTAAG	2460
AGTCTATTCG AATTTTCCTA AAAGATTGTG GTTTTCAAAA TATTACCATT GAAATTGATG	2520
CTGACCTAGA AACTCACCAA ACCCATAAGC GAAAGGTGTG TGACTTGGA CGGAGTTATG	2580
AGCATCAACA TTAGAAAAA GTGAAAAATA CTTGGGTACT ATCTTATTG GAATAGAGTA	2640
ATTTCTTTAT TATTTAAATA TTTCAAAAAT TGGTAAGAGA AGAGCATTGT ATAAACTCCA	2700
GATATATGAT TGTTAATGAT AAAAATTTT CGATTAGATA CAAAATGCTT GACTTGGAGT	2760
CAACTCAAG TTATATAATA AGATAAGTGA GTTAGAATAG CGTGAATCA GTGAATGAAA	2820
TGAGAGGAGG TTAGCGTGTG AATATTAAAT CTGCCAGTGA TTTGTTGGGA ATTTCAGCGG	2880
ATACGATTCG GTATTATGAA CGGGTTGGTC TTGTGCCACC GATTACTCGT ACTGCTACTG	2940
GGATTCGTGA TTTTCAAGAT CAGGATATCG AAGCGCTGGA ATTTATTAAG TGTTCGTGTT	3000
CGGCGGGTGT CTCTGTAGAT AGTTTAGTTG ACTATATGTC GCTCTACCAA AAGGGAGATG	3060
AAACGAGAGA GGAGAGGCTT GGTATTTTAG AAGAGGAAAA GCAAAAATTA GAGGAGCGCT	3120
TGTCTCAGCT ACAGACAGCT TAAATCGTT TAAATCTCAA AATTAACTT TATAAGGAAG	3180
GAAAATTTTA AATGAAATCA GCAGTATATA CAAAGGCAGG TCAGGTTGGA CTTGCTAGCA	3240
TTGAACGTCC GCAAATAATA GAAGCGGATG ATGTGATTAT TCGTGTGGTT CGTGCGTGCG	3300
TTTGTGGTTC AGATTTATGG AGGTACCGTA ATCCAGAAAC GAAAGCTGGA CACAAAAATA	3360
GTGGACACGA AGCGATTGGG ATTGTTGAAG AAGCTGGGGA AGCCATTACG ACGGTGAAAG	3420
CAGGTGATTT TGTGATTGTC CCTTTTACAC ATGGATGTGG TGAGTGTGAT GCCTGTCTTG	3480
CTGGATTTGA CGGTTCTTGC GACAATCATA TTGGCAATAA TTTGGGGGGT GATTTTCAGG	3540
CAGAAATAT TCGCTTCCAC TATGCAAACT GGGCGCTGGT TAAATCCCT GGTCAACCTT	3600
CTGACTATAC AGAAGGGATG CTCAAGTCCC TTTTGACTCT TGCAGATGTC ATGCCGACAG	3660

620

GCTATCATGC GGC GCGTGT GCAAATGTTT AAAAAGGGGA CAAGGTTGTT GTTATCGGTG	3720
ATGGGGCTGT TGGTCAATGT GCTGTCATCG CGGCTAAGAT GCGTGGAGCA TCACAAATTA	3780
TCCTTATGAG CCGTCATGAA GACCGTCAAA AGATGGCTAT GGAGTCAGGT GCGACAgcTG	3840
TTGTTGCAGA ACGTGGTCAA GAAGGAATTA CCAAGGTGCG TGAATCCTC GGTGGAGGAG	3900
CAGATGCAGC ACTTGAATGT GTTGGTACGG AGGCTGCTAT AGAACAGGCG CTAGGTGTTT	3960
TTCATAATGG AGGGCGTATG GGCTTTGTAG GAGTCCCACA CTATAATAAT CGTGCTCTTG	4020
GTTCGACATT TATGCAAAAT ATCTCTGTAG CAGGTGGGGC AGCTTCTGCT ACAACATACG	4080
ATAAGCAATT TTTACTAAAA GCCGTCCTTG ATGGTGATAT CAATCCAGGT CGCGTCTTTA	4140
CTTCAAGTTA TAAACTGGAA GATATCGACC AAGCCTATAA AGATATGGAT GAACGTAAGA	4200
CAATTAAGTC TATGATTGTA ATCGAATAAA AAACGAATAG GAGTTTAGA ACTCTATTTCG	4260
TTTTTTATGT TATCTATTTC TTGATTAGG GTACTTTCTC TTAATGTCAG TCTGGTTCCC	4320
AGCATGGTCA GGCTAGGGAT TTTCCGACCG TGGAGGACTT CCTTGTTAAG AATATCCATA	4380
CCTGCTCGGC CCATTCTCTC AGTATAAACT GTAATACTAG AGAGGGGAGG ATAGACCTGT	4440
TTGGTCAGAC TAGTGTCGTT AAAGGAAATG AGGCTGACGC GATCTGGCAG GCTGATTCCA	4500
GCTTCTTGGA GGGCACGGAG GGCACCGATA GCTAAACTAT CGCTGGCTGC GAAAAATGCT	4560
GGCGGAAGTT GGTCTCCCAA GCTCTGAATG GCCTCCTTCA TTAAGTCATA GCCAGACTGG	4620
GCAGTAAATC TTCCTTGAAA GACCAGTTCA TCATGATAGA TTCCCTCGC TTGACTATAG	4680
TTTTTGAAGT TTTCTAGACG CTTGTCCTGA ATGATTTCTT CTTGGTCTGT TGTTCCTTCA	4740
AGGCCTGTIA GAATCCCGAT ACGGTCCATT CCTTGACTGA GGAAATAATC GACAACCTGT	4800
TTCATAGCAG TGTAATAATC CGTGATAATA CAGGTATGTC CCAGGGAAAG TGTATCGCTG	4860
TCTAGAAATA CAAGAGGCTT TTGGTATTCT TCAAAGGCAG AAATCTGAGC TCGACTAAAC	4920
TTTCCGATGC AGAGAATCCC AATCACTTCC TCGCTTAGGG TAAAAGGGTG GTCATTAAAA	4980
TAGCGCAAGA TATCATAGTC CAACTCTTGG GCTCTTTTTT CTATTCCTAG GCGAATCTGG	5040
TAGTAGTAGA GGTCGTCCAG CTCCCCTTGT TCGCTGACCC ATTGGATAAT GGCAATCTTT	5100
TGCTTGGGTT TGTGGGACTC GCCTGCTTGG AGGTGCTTGG TGTAGCCAG CTCTTCAGCA	5160
ACGGTTAAAA TACGGTGTCT GGTTCCTTCT GTAAACAGATA GGCTCTGGTC GCGGTTGAGG	5220
ACGCGGGATA CGGTCCGAT AGAGACAGAG GCTAGCTGTG CAATGTCTTT TAAGGTAGCC	5280
ATAAATCCTC CTTGATTAGG TTAGTATATC ATGTTTTTCT TCTTTTACT GATATTTTAC	5340
TAAAATTTTA GTAAAAAGGA TTGACCTTGG AAAATTCCTT GGATATAATA GAAAGAAAAC	5400
GATTACACGT TAAGATGGCT TAACGGACAG TCAAAGGAGA ATTCATATGG CACAACATCT	5460

621

TACTACTGAA GCCCTTCGCA AAGACTTTCT TGCTGTTTTT GGTCAAGAAG CAGATCAAAC	5520
CTTCTTTTCA CCAGGCCGCA TTAATTGAT TGGTGAACAC ACAGACTACA ACGGTGGGCA	5580
CGTTTTTCCT GCTGCTATTT CCTTGGGAAC TTACGGTGCA GCTCGTAAGC GTGACGACCA	5640
AGTCTTGCGT TTCTACTCAG CTAACCTTGA GGACAAGGGC ATTATCGAAG TGCCTCTCGC	5700
TGACCTCAAG TTTGAAAAAG AGCACAACTG GACCAATTAT CCAAAAGGTG TCCTTCATTT	5760
CTTGCAAGAA GCTGGGCACG TGATTGACAA AGGTTTTGAT TTTTATGTTT ATGGAATAT	5820
TCCAAATGGT GCTGGCTTGT CTTCTTCTGC ATCCTTGGA CTCTTGACAG GAGTCGTGGC	5880
TGAGCATCTC TTTGATTAA AATTAGAGCG TCTCGATTG GTTAAATCG GCAAACAAAC	5940
AGAAAACAAC TTTATCGGAG TAAACTCTGG CATTATGGAC CAGTTTGCTA TTGGTATGGG	6000
GGCAGACCAA CGTGCTATTT ACCTAGATAC TAATACTTTA GAATACGACT TGGTGCCACT	6060
TGATTTGAAG GACAATGTCG TTGTTATCAT GAACACCAAC AAACGCCGTG AATTGGCGGA	6120
CTCTAAATAC AATGAACGTC GTGCTGAGTG TGAAAAAGCA GTGGAAGAAT TGCAAGTTTC	6180
CTTGATATT CAGACTCTGG GTGAATTGGA CGAGTGGGCC GTTGACCAAT ATAGCTATCT	6240
GATTAAAGAT GAAATCGTT TGAACGTGC TCGCCATGCT GTGCTTGAAA ACCAACGTAC	6300
CCTCAAAGCT CAAGTAGCAC TCCAAGCAGG AGATTTGGAA ACATTTGGAC GCTTGATGAA	6360
TGCGTCACAC GTTCTCTGG AGCATGATTA TGAAGTAACT GGTTTGGAAT TGGATACCTT	6420
TGTTACACA GCTTGGGCAC AAGAAGGAGT TCTCGGTGCT CGTATGACAG GGGCTGGTTT	6480
TGGTGGCTGT GCcATTGCCT TGGTTCAAAA AGATACTGTT GAGGCCTTTA AGGAAGCTGT	6540
AGGCAAACAC TACGAGGAAG TAGTTGATA CGCTCCAAGC TTCTATATCG CTGAAGTTGC	6600
AGGTGGCACT CGCGTCCTTG ACTAGTCAAA AGGAGGCTCT ATAGTGACCT TAGTAAATAA	6660
ATTTGTAACA CATGTCATTT CTGAAAGCTC ATTTGAGGAA ATGGATCGAA TCTATCTGAC	6720
CAATCGTGTT TTGGCAGGAG TGGGAGAAGG TGTTTTGGAA GTTGAGACCA ATCTGGATAA	6780
ATTGATTGAC CTCAAGGACC AGCTGGTTGA AGAAGCCGTT CGATTAGAGA CGATTGAGGA	6840
TAGTCAGACT GCGCGTGAAA TCCTTGGTGC TGAACGTATG GATTTGGTGA CTCCTTGTCC	6900
AAGTCAGGTC AATCGTGATT TTTGGGCAAC CTACGCCCAC TCTCCAGAAC AAGCGATAGA	6960
GGATTTTAC CAACTCAGTC AGAAAAATGA CTACATCAAA CTCAAGGCCA TTGCTAGAAA	7020
TATCGCTTAT CGTGTTCCAT CTGACTACGG AGAACTTGAA ATTACCATCA ATCTCTCTAA	7080
GCCTGAAAAA GATCCCAAAG AGATTGTGGC AGCCAAGTTG GTGCAAGCTA GTAATTATCC	7140
TCAGTGTGAG CTTTGTCTAG AGAATGAGGG CTACCATGGT CGAGTTAACC ACCCAGCTCG	7200

622

TAGCAATCAC CGTATTATCC GTTTTGAAAT GGTGGTCAG GAATGGGGTT TCCAGTATTC	7260
GCCCTATGCT TACTTTAATG AGCATTGTAT CTTTTAGAT GGCCAGCATC GTCCCATGGC	7320
CATTAGTCGT CAGAGTTTGT AACGTCGTGT GGCTATCGTA GACCAGTTTC CAGGATATTT	7380
TGCTGGATCT AATGCCGACC TGCCGATTGT GGGGGGCTCT ATTCTAACTC ATGATCATTA	7440
TCAGGGAGGC CGTCACGTAT TTCCTATGGA ATTGGCTCCC TTGCAAAAGG CCTTCCGATT	7500
TGCTGGTTTT GAGCAGGTCA AGGCTGGAAT TGTCAAGTGG CCCATGTCTG TCCTACGTTT	7560
GACTTCGGAT TCCAAAGAGG ATTTGATCAA TTTGGCTGAT AAGATTTTGC AGGAATGGCG	7620
CCAGTATTCA GATCTGCGAG TGCAGATTTT GGCAGAGACA GACAGGACAC CGCATCACAC	7680
TATCACACCC ATTGCCCGCA AACGCGATGG ACAGTTTGAG TTGGACTTGG TCTTGCGAGA	7740
CAATCAGACT TCAGCAGAGT ATCCTGATGG TATCTATCAT CCCCACAAGG ATGTCCAACA	7800
TATCAAGAAG GAAATATCG GCTTGATTGA GGTCTGGGC TTGGCAATCT TGCCACCACG	7860
TCTGAAAGAA GAAGTGGAGC AAGTCGCTAG CTATCTTGTA GGAGAAGCTG TTACAGTTGC	7920
CGATTATCAT CAGGAGTGGG CAGACCAACT CAAATCCCA CATCCAGACT AACGGATAAA	7980
GAAAAAGCCC TTGCAATCGT CAAGGACTCT GTGGGTGCTA TCTTTGCGCG TGTACTTGAG	8040
GATGCAGGAG TCTACAAGCA GACAGAACAA GGCAGACAG CCTTTATGCG CTTTGTGGAA	8100
CAGGTCGGAA TTTTACTAGA CTAGGAGCTT TCTCGG	8136

(2) INFORMATION FOR SEQ ID NO: 76:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10011 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

CCCATAGTGA AGAGTGGCCA TAAGAAGGTC TTCTAGGCTT AATTTAGGTT TTCGTCCACC	60
TTTTGCGTGT TTAAGTTGAT AAGCTGTTTT TAACACAGCT GAACATCTCT TCAAAAGTCG	120
TGCGCTGAAC ACCAACAAGA CATTTAAATC GTGTATCAGT TAGTTGTTTA CTTGCTTCAT	180
CATTCAATAGA ACTACTATAC CATGTTTTGT TTCGCAGGAA GTCTAATATT GTCAAATACT	240
GGAACGCTCA TTGCTGGGAT ACGGAATAAG ATTGGCCCAG CTTGATAAC TGGGATACCT	300
GGTTCAAAAC CAAGGTCTGT TGCAGCGATT GGTGTAAAGA TATCGTAACC TTTCATAAGG	360
TCTTCGTTTA CATCTTTCAC CATAACTGCA TCACAGTGAA CATCGTAACC ACGGTTTGAA	420
AGTTCTTCTT CTAGAGCACT TTAAATTTGG TGACTTGAGT TAACACCTGC ACCGCAGGCA	480

623

GCAAGAATTT TAATCATTTG GATTTCTCC GATTTTATTT TTTAATAGAC AAGATTAAGC	540
GGTGCCTCA GCAATGTAAG CATAAAGGC TTCTGGTTCA GAAATTTTG ATAGGTCTTC	600
AAGATGACCA TTTCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTCG TTGACTTGA	660
ACTTGAATTA TTGATGATAA AGAAGAGCAA GGATACTTCT ACTTCCTTAC CTGGCGCAAT	720
CATATTATGG AAAGTACCG GTTCTCTAA TCGAACAACC ACCACTTCT CAGCTAGATT	780
ATGAACAATA TCTGTGTGAG GAATCATTAC ATTTGCAAGT CCTTCTCTAG AAATTCCATA	840
TATAAACCG TTGGAATGA CTTTTCACGC GTGATCAAGG CTTACGATA AGTTGGAGTG	900
ACAATTCTC GTTCTTCCAA CAAGCTTGCT ACCTGATCAA AAAGTTATTC TTGATTATCC	960
GCTTCTAAGC AAAACACAAG GTTTTGTCA AAGAAATAAT CTAATACCAT AAGGTTTCC	1020
CTTCTTTCCA TTAACTTTAT GCTATAAGTA TAACACTATA TGAAATCGTT GTTAATTACT	1080
TTCTATCTT TTTTGTCTCT TTTTTATAT TTTGTTTG TTTATAGTT GTTATATAAA	1140
AATAACACA CAAACAAATA CTCCAAGCAT TTTCTGTTC TAATACTCAA TGAAAATCAA	1200
AGAGCAAAC AGGAAGCTAG CCGCAGTTGT TCAAAACACA GTTTTGAGGT TGTAGATGAA	1260
ACTGACGAAG TCACTCAAAA CATGGTTTG AGGTTGTAGA TGAACTGAC GAAGCAACAG	1320
CCATACATAC GGTAGGCGA CGCTGACGTG GTTGAAGAG ATTTTGAAG AGTATAAAAA	1380
CTAAAAAGC AGACCATCTA AGCCTGCTTT ACTATTGATT CTTATATAAA TTTCTGTGA	1440
ACAAGGAAAG GCATTTCTGA TAACTTATTC TTCATCCATA CTCAAGACGC TGAGGAAGGC	1500
TTCTTGCGGA ACTTCAACTG ATCCGATGGA TTTTATGCGT TTCTTACCAG CTTTTGTTT	1560
TTCAAGGAGT TTACGCTTAC GAGAAACGTC ACCACCATAA CATTTAGCAA GTACGTTCTT	1620
ACGAAGGGCC TTGATATCAG TACGAGCGAC AATCTTGTGT CCAATAGCCG CTGGATTGG	1680
AACTTCAAAT TGTGGCGAG GGATGATTTT CTTGAGTTA TCAACGATGA GTTTCCCACG	1740
TTCTGAGGCA AAGTCTTGT GAACGATAAA GCTGAGGCA TCCACCTTAT CTCCATTGAG	1800
AAGAATATCC ATTTTACCA GCTTAGATGG GCGATATTCT GACAATTCGT AGTCAAAGCT	1860
TGCATAACCA CGTGTGAAG ACTTAAGTTT ATCAAAGAAG TCAAAGACAA TTTCAGCAAG	1920
AGGAATTTGA TAGATAACAT TGACACGGT ATCATCAATA TAGTCCATAG TCACAAAGTC	1980
CCCACGCTTA CGCTGAGCTA GCTCCATTAC TGCTCCGACG AACTCCTGTG GTACCATGAT	2040
TTGCGCCTTG ACATAAGGCT CTTCAATGGT CGCAATCTTA GTTGGGCTG GAAACTCAGA	2100
TGGGTTAGAC ACATCCATAG ACTCACCGTC GGTCAAATTA ACTTTGTAAA TAACAGACGG	2160
AGCTGTCATG ATGAGGTCAA TATTGAACTC ACGCTCTAAA CGTCTCTGGA TAACATCCAT	2220

624

ATGGAGAAGT CCAAGAAATC CACAACGGAA ACCAAATCCA AGTGCCTGAG ATGTTTCTGG	2280
TTCAAAGTGA AGACTAGCAT CATTGAGTTG CAATTTTCA AGCGCTTAC GCAGGTCATT	2340
GTAAGTGTGTT GATTGAGTTG GGTAGAGACC CGCAAAGACC ATAGGATTCA TCTGCTTATA	2400
ACCATGTAAT GGTTCGCGG CAGGATTGGT TGCCAAGGTA ACGGTATCAC CCACACGAGT	2460
ATCCTGAACC GTCTTGATAG ACGCCGCAAT GTAACCAACA TCACCAGTCG CAAGGAAATC	2520
ACGACCAACC GCTTTTGGTG TAAAAATACC GACTTCGGCC ACATCAAAGG TCTTACTATT	2580
GCTCATGAGC TGAATCTTAT CACCAGGTTT GACCACTCCG TCCATGACAC GCACTTGGAG	2640
GATAACCCCA CGGTAAAGCAT CGTAAACAGA GTCGAAAATC AAGGCCTTAA GTGGCGCCGT	2700
CACATCACCC GTTGGTGCTG GTACTTTTTC TACAATTTGC TCGAGGATTT CTTCAATCCC	2760
AATACCAGCC TTGGCAGAAG CCAAACTGC TTCCTGCGA TCCAAACCAA TCACATCTTC	2820
AATCTCTGTA CGCACGCGCT CCGGATCTGC AGCCGCGAGG TCAATTTTAT TAATGATAGG	2880
CATGATTTCC AAATCATTAT CCAAAGCCAG ATAAACGTTG GCAAGAGTTT GAGCCTCAAT	2940
TCCTTGAGCC GCATCGACCA CCAAAATAGC ACCCTCACAG GCAGCTAGCG AACGTGAAAC	3000
TTTCATAGGTA AAGTCAACGT GCCCTGGTGT GTCAATCAAG TGGAAAATAT AAGTTTCCCC	3060
ATCTTTTGCA GTGTAATTCA ACTCGATGGC ATTCAACTTA ATAGTAATTC CACGTTCCCG	3120
CTCTAGCTCC ATGCTATCCA AAAGCTGGG CTGCATTTC CGACTTGAAA CCGTCTCTGT	3180
TTTTTCCAAA ATGCGGTCTG CTAGAGTTGA TTTTCCGTGG TCAATATGGG CGATAATAGA	3240
GAAGTTACGG ATCTTCTCCT GTCGTTTTTT CAATTCTTCT AAGTTCATGA TTCTCTCCT	3300
TTGAGGTAT CTATTTATTA TAAATTGTTT TTGATATTTT GACAAGACCA TACCCTGCTA	3360
GGAGTACTAA TCTTCAGCGA CAAAGCCGTC ATTTTCGATA AAGTGGTGT CTGTCATTCC	3420
TTGGTCTGTA AAGACAATCC CGTGAAGGAC ACCACCATAA ACAGCTCCTC CATCCATTCC	3480
AATCTTGCCA TCTTCTGTAG TCCAAAGCTC AGATGTACCG CGTTCTTGCT GTAACAAACC	3540
ATAGACCGGT GTATGACCGA AGACAATGGT TTTTCCAGTA TGATTTTCAG CTCCGTGGAA	3600
TGGTTTTCTA AGCCATACTT TTTTATAATC TGTGTTTCA TGCCAGTCGT CCAAGGTCAA	3660
ATCAATACCT GCGTGAACAA AGATATACTT GTCTGTCTCT ACTACAAATG GCATTGACG	3720
AATGAATTCG ACCAAGTCTG CCGCTTCAGC GCAACCCGC TTGGCATCTT CTACTCCATC	3780
AACTGGTGCA TCCAAGGGAC GACCTAGGAT AGAGTTAATG GTTGTATCTC CACCATTGCG	3840
ACTATAATGG TCATAACTTT CTTCTGGGTC ATCTAGCCAA GTCAAAAACA TATACTCGTG	3900
GTTCCTGGAC AAACAGATAG CCCCTTGATT GTCCACCAAG TCCTTGACCA TTTCAAGAAC	3960
ACGGTGAATA TCCTCACCTC TGTCATCAA ATCACCTAGA AAGAGCAACT GGGGCTGACC	4020

625

ATCCCAGGTT TTGAGAAGGT CTTCCAGCAT CCCAGCTTTT CCGTGAACAT CTCCAATTAC	4080
ATAATAATCT GTCATCTTAT TTCCTCCCTGT TTCTCAACAA TTCTCTTGCT TCGTCAGGG	4140
CTGCTTCTGT CACATCATCA CCTGCCAACA TCTTGGCAAC TTCCTCCACT CGCTCTTCGA	4200
CCGTCAAGAG ACGAACAGTC GAAACCGTTG AATGGTCATT ACTAATCTTC TCAATAAAGA	4260
ATTGATAATC TGCAATCGCA ATTACTTG TGCAATGGGA GATAGCCAAA ACCTGACCAT	4320
GCTGACCAAT TTTATGAATT TTCTGAGCAA TAGCTTGAGC AACACGACCT GAAACTCCCG	4380
TATCCACCTC ATCAAAGACA ATGCTAGTCT TGCCTTCTTT ACGTGAAAAG GCAGACTTAA	4440
TGGCTAACAT GAGACGAGAT AATCCCTC CAGAAGCAAC CTTAACCAAG GGTTTAAAGT	4500
CTTCTCCAGG GTTGGTTGAA ATATAAACT CAACCATTTT ATTTCCCTCA CGACTGAATT	4560
TTCCCTTACT AAAACGAACC TGAACTGGG CTTTTTCCAT ATAAAGATCT TGCAGTTCTT	4620
GTTTAATCTC AGCTTCGAGT TGCTGAGCCA AATTATGACG AGCAGAAGCA AGTTGACCTG	4680
CCAAATTGAC AAGATTGACT TCCAACCTCT TAAGCTCTGC TTCCATGTCC TCAGACGAAA	4740
GATTATTGCC TGTCAAGAGA TTGTATTCTT CCGTAATCTT GGCAAAATAA AGCAAAACAT	4800
CATCAACAGT CCCACCATAC TTACGAGTAA TAGTATGAAG GAGGTCCAAA CGATTCTCAA	4860
CCTGCATCAG GCGATTGCCA TCAAAATCAA GGTCTCAAT GATAGCTTCC AAACGTTTGC	4920
TAATGCTTTC TAAACATAG TAGGTCTCAG ACAGATAGCT TGAAATTTCA CGGTATTCAG	4980
GATCATACTC TTCGACACTT TCCATGTCAT TCATAGCTGA ACGAACATTG GCCAGACTTG	5040
AAAAATCTTC ATTGTCCAAC ATACTGTAGG CATTTGGTCAG TGTATCCGCA ATATTTTGT	5100
GGTTGAGGAG TTTATCTCGC TCTTGATTGA GAGCCAAGTC TTCTCCAGCC TGCAAGTTTG	5160
CTGCCTCAAT CTCTGCCATT TGAAATTCCA ACATTTGAT ACCTGCCCTTG TGTTCCTGTT	5220
GGTTTTCTT GACTTCCAGA ACCTGCTTGC GCATTTTCCG ATAGGCATCA AACTCGTTT	5280
GATAGGTTTC TTTCAGTCC CAAAAGCGG CATCACCAA TTCATCCAAC ATCTGGATAT	5340
GCAGTTGGGG ACGCATTAAC TCCTCATGGT CATGCTGACC ATGAATATCT ACAAGATGTT	5400
GCCCAATAGC TCGCAAAACA GACAGATTAA CCATCTGACC ATTTACACGG CTGATACTAC	5460
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CATCAAAAAT TTCTGTAAA AGACGACTAT TCTCAACTGA GAAAAGCCCC TCAATCTCTG	5580
CCTTTGGTGC ACCATGACGA ATAACATCTG TCGTCGCACG AGCTCCCAAC ATCATATTCA	5640
TGGCATCAAT GATAATCGAC TTCCCTGCAC CCGTTTCACC AGTCAGGACA GTCATCCCT	5700
TTTCAAAAT GAGGGAAATA GCCTCAATAA TGGCAAAGT TTTTATCGAA ATTCAAGTA	5760

626

ACATATAGAC CTACCAATTT TTTACTTGTT CAAAGATTTT CTCTGCTAGA CTTCACCTTC	5820
TGGCAATGAC TAAATCGAG CTATCATCAG TCAAACAGCT AAAATCTTG TCTGCAAAAG	5880
TCTCGATTAA CTGAGCTTTT ACAAAGCCG TATTTCTCGG AATAACTTGG AGATTGATCA	5940
TCTTATCCAT CAATTCAGCC GATTCGATAT TGTCTTCAGC CAGTTGCAGA CTTTTTACGA	6000
TTGATTTTGG CAATTCGTAG ACATAGGTGT TGTCTCTCAA AGGAATTTTG ACAATACCTA	6060
ACTCTTTGAT ATCTCGGGAT ACCGTCGCCT GAGTGGCAGT GATACCTGCT TCTTTCAAAT	6120
GTTCTACAAT TTCTTCTTGC GTGCCGATTT GATAATCTGT CACCAATCTT CTAATTTTMT	6180
CAAGTCTCTC TTTTTTATTC ATTTTAAAT TGACTATGCG CCCTCTCTAC TGCTTCTTTA	6240
ATCTCAGCAA GAATCTGATT GCTTGCTGAC TTTTCTTTT TCAAATACGC TAAAAATTCA	6300
ATATTTCAT GTCCACCTTG GATGGGAGAA AAGTCCAAGC CAAGGACTGA AAAACCTACC	6360
TCTACTGCCA TAGCTGTTAC AGATTCAAGG ACATTCTGAT GAACCTTAGC ATCTCGAATA	6420
ATTCATTTT TCCCAATCTG CTCACGTCCT GCCTCAAAC T GAGGTTTGAC AAGTGCTACC	6480
ACCTGACCTT GATCAGCCAA GACACGGTGC AAGGCTGGCA AAATCAGACT AAGGGAAATG	6540
AAACTCACAT CAATACTGGC AAAGCTCGGC TCCTGCTCGA AATCAGTCTT TTCAGCATAG	6600
CGGAAATTGA ACTGCTCCAT GCTGACAACT CGTGGGTCTT GGCGTAATTT CCAAGCCAAC	6660
TGATTGGTAC CAACATCGAC TGCAAAGACC AACTTGGCAC TATTCTGTAG CATGACATCG	6720
GTAAACCTC CAGTAGAGGC CCCGATATCA ATCGTAGTCG CGCCATCCAC CGACAAATCA	6780
AAGACCTGCA AGGCCTTTTC CAGTTTCAA CCACCACGGC TGACATACTT GAGTTTCTCC	6840
CCCTTGAGTT TTAATTCGGT GTCATCTGGA ATTTTCTCTC CTGGCTTGTC AAACCGTTCT	6900
CCATTAAGGA CTGCTACGAC TAGGCCAGCC ATCACACCTC GCTTGGCCTG CTCTCTCGTT	6960
TCAAACAACC CTGTTTATA AGCTAGTACA TCCACTCTTT CCTTAGCCAT TGATTCTCAA	7020
ACTTTCTACT ACATTACAA TCGATTCTGT TTCAAAGGGA AGCTGCTGGG CAATTTCTTC	7080
TAATTTTCA TTAGCTTGAT CCAGGGTTTG GTTACAAAAG GCAATGGACT CTTCCAAGCC	7140
CAACAGGGCA GGATAGGTG ATTTTCTGTC CTGCAGATCC TTTTGAGGTG TCTTGCCGAT	7200
TTCTCAAAA CTAGCTGTCA CATCCAGTAC ATCATCTCTG ACTTGAAAAG CAAGTCCAAT	7260
CAATTCACCC ACAGTTTCA GCTTCACCTG CATTTCAGGT GACAATTCAG CTATAATAGC	7320
TGCCGCTTGG AAGGATAGG CTAGTAACTT CCCAGTCTTA TTGGCATGAA TAGTCTGAAG	7380
TTCTTCCAAA GACAAGTGCT GGTGTTGCCC CTCCATATCC AAAACTTGCC CTGCTACCAT	7440
ACCCAGACTA CCTGAAGCAA GGGATAAGTT GGCAATCAAG TCCACCTTAA TCTGACTTGG	7500
CAAATCTGCC TGCACATCA AGGCATATGA GTCTAAGAAT AAGGCATCTC CAGCCAAAAT	7560

627

GGCCATAGCT TCACCGAATT TCTTGTGATT GGTAAACCGC CCTCTTCGAT AATCGTCATC	7620
ATCCATAGCA GGAAGGTCAT CGTGAATCAA GCTCCCTGTA TGAATCATCT CTAAGGCAGT	7680
AGCTACCTGC GCGTGAGCAG GTTTGATGGT AACCTGCAAG GCTTCCAGAA CTTCTAACAA	7740
GAGAAAAGGC CGAATACGCT TGCCACCAGC ATGAATAGAA TAGAGAACAG ACTCCCGTAA	7800
ACTAGAGGCA AACTGCTGGT CTCCATAAAA ATCTTCCAAA GCCGACTCGA CAAGAGCTAA	7860
TTTTTCTTGC TTTTTCATTC AAAATCACTT TCTGTTCCGT CTTCTTGCAAT GACCTTGACC	7920
AAGGTCTTTT CAGCCTTGTC CAGCGTAGCT TGGAGCTCTT TTGACAAGAC CATGCCCTTT	7980
TGAAAGGCAG TAATCGCATC TTCCAGAGCA ATTTCAACCAT TTTCCAAACT TTGACAATG	8040
GTTTCCAGTT CTGCTAGATT TTCTTCAAAT TTCTTTTGTT TTGACATCTT TAACCTCTAA	8100
TTCTACTTGA CCATCTCGCA TCAAAAGCGT TACTTGGTCT TTTTCTTCA AACTCTCAAC	8160
CGAATCTACA ACGGACTCTT CTTTTTTGAC AATAGCATAA CCACGCGCCA CGATTGCGCT	8220
AGTATCCAAC ATGAGCAAAG CTTCGAAAG TCGTTGGCC TCAGCAACCT TGGCGTCATA	8280
AACTAACGCC ATTTGGCTAC CTAAGAGCTT GTCCAACTGT CCTAAACGGT CTTGATAGCG	8340
TTGGATTTTG GTAACAGGTG ATAATTGTAC TAATTGATGA GTTCTTGCTT GAACTAATG	8400
TTTGTATCA GAAATCCGAG TTCCGAAACT TTGTTTCAAA CGCAGTTGCA GTTGGTCCAA	8460
GCGTTGCAAA TAACCGTCAT ACAAGCGCTC AGGTTGTCTA AAGATAACAG ACTGACTGCA	8520
TTTTTTCAAA GCCTCTGTT TCTTAGATAG AACATTTCCG ACTGCCGTTA CCATCCGTTT	8580
TTCTTGATTT TGCAAAATGAG CTAATACATC CAACTTGGTC ACAGGTGTTG CCAGTTCAGC	8640
CGCCGCTGTT GCGTTGTCAG CGCGTCGATC TGCCACAAAA TCTGCCAAGG TCACATCCGT	8700
CTCATGCCCC AACTAGAGA TAACTGGCAA ACGAGATTCA AAAATAGCTC GTACCACAAT	8760
TTCTTCGTTA AAGGCCAGAG GATCCTCAAT AGAACCACCT CCACGACCAA TAATGAGCAA	8820
ATCCAAATCG TCCCGTTGAT TAGCACGCGC AATATTTCTA GCAATTTCTT CCGCAGCCCC	8880
TTACCTTGA ACCTTGGTCG GATAAAGAAG GATGTCAACA CCTGGGAATC GCCTGCTGAC	8940
GGTCGTGATA ATATCTCGAA TAACGGCTCC ACTACGGCTG GTTACTACAC CAATTCTCTT	9000
AGAAAATTGG GGCAGAGCTT GCTTGAAGCG TTCTTGAAC AGGCCTTCTT CTGTCAATTT	9060
TTTCTTAAGT TGTTCAAAT GAATCGCAAG CGCCCCAACC CCATCAGGCT CAGCTTTTTC	9120
AATGATGATG GAGTAGCTAC CACTTGGTTC ATAGACCTGT ACACGCCCAA TCACATTGAT	9180
CTTCATTCCT TCTTCCAGGT CAAACCCTAA TTTCTGATAA ATCCCAGACC AGATGGTCGC	9240
TTGAATAACT GCATGGTCAT CCTTTAGGGA GAAATATTGG TGAGTAGGTC GTTTACGAAA	9300

628

GTTGGAAACT TGACCAGTTA AATAGACCCG TTCCAAGTAT GGGTCTTTAT CGAATTTTCAT	9360
TTTCAGATAC TTGGTCAAAG TTGTTACCGA TAAATACTTT TCCATCTCCA CCTACTATTC	9420
ATTTACTTGC TCTTTCATGG GTATTATTAT ACCAAAAATA TGCCTAAAAA TCTCCATTTA	9480
TGTACCATTA TGAGGGAAAA ATAGAAAAAG GAGGCAAGGC CTCCACATGT GATTATTTGC	9540
TGTTTCGAGC TTCTTCCAAA ATCTTTGCAA TCTTGGTCGT CAACAGGTCG ATAGCCACGG	9600
TATTGCTAAC CCCTTCAGGA ATGACGATAT CAGCATAACG CTTAGTTGAC TCGATAAACT	9660
GGTGGTACAT TGTTTTGACC ACACCTAAGT ACTGGTTAAT AACGCTATCA AGGCTACGGC	9720
CACGCTCTC CATATCACGC TTGATACGAC GAATAATGCG CACATCGTCA TCCGTATCCA	9780
CAAAAATCTT GATATCCATC AAATCGCGCA GACGCTTGTC CTCCAAGACC AAAATACCTT	9840
CAACGATAAA GACATCTTGA GGTTCCTGAC GATAGGTCTT GCTACTCCGT GTATGCTCTG	9900
TATAGTCGTA GGTCCGGATG TCCACCGGAC GCCCTGCCAA CAATTCCTTA ATCTGCTCGA	9960
TCATCAAGTC TGTATCAAAG GCAAAGGAT GGTTCATAGT GGTTTTGACG G	10011

(2) INFORMATION FOR SEQ ID NO: 77:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5365 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

CGTGTGCTCT TAAAAATAGA AGACAAAGAA CAAACTGTTG GAGGCTTTGT CCTTGCAGGC	60
TCAGCCCAAG AAAAAACCAA AACAGCTCAA GTTGTGGCTA CTGGACAAGG TGTTTCGTACC	120
TTGAACGGTG ACTTGGTTGC TCCAAGTGTT AAAACTGGAG ATCGTGTCTT AGTTGAAGCC	180
CACGCAGGTC TTGATGTCAA AGATGGCGAT GAAAAGTACA TCATCGTAGG CGAcTAACAT	240
TTTGGCAATC ATTGAGGAAT AGAAGGAGAA AGTAAGTATG TCAAAAGAAA TTAATTTTC	300
ATCAGATGCC CGTTCAGCCA TGTTTCGTGG TGTCGATATC CTTGCAGACA CTGTTAAAGT	360
AACCTTGGGA CCAAAGGTC GCAATGTCGT TCTTGAAAAG TCATTTCGGT CACCCCTGAT	420
TACCAATGAC GGTGTGACCA TTGCCAAAGA AATCGAATTG GAAGACCATT TTGAAAATAT	480
GGGTGCTAAG TTAGTATCAG AAGTAGCTTC TAAAACCAAT GATATCGCAG GTGACGGAAC	540
TACGACTGCA ACAGTCTTGA CCCAAGCTAT CGTCCGTGAA GGAATCAAAA ACGTCACAGC	600
AGGTGCAAAT CCAATCGGTA TTCGTCGTGG GATTGAAACA GCAGTTGCCG CAGCAGTTGA	660
AGCTTTGAAA AACAACGCCA TCCCTGTTGC CAATAAGAA GCTATCGCTC AAGTTGCAGC	720

629

CGTATCTTCT CGTTCTGAAA AAGTTGGTGA GTACATCTCT GAAGCAATGG AAAAAGTTGG	780
CAAAGACGGT GTCATCACCA TCGAAGAGTC ACGTGGTATG GAAACAGAGC TTGAAGTCGT	840
AGAAGGAATG CAGTTTGACC GTGGTTACCT TTCACAGTAC ATGGTGACAG ATAGCGAAAA	900
AATGGTGGCT GACCTTGAAA ATCCGTACAT TTTGATTACA GACAAGAAAA TTTCCAATAT	960
CCAAGAAATC TTGCCACTTT TGGAAAGCAT TCTCCAAAGC AATCGTCCAC TCTTGATTAT	1020
TGCGGATGAT GTGGATGGCG AGGCTCTTCC AACTCTTGT TTGAACAAGA TTCGTGGAAC	1080
CTTCAACGTA GTAGCAGTCA AGGCACCTGG TTTTGGTGAC CGTCGCAAAG CCATGCTTGA	1140
AGATATCGCC ATCTTAACAG GCGGAACAGT TATCACAGAA GACCTTGGTC TTGAGTTGAA	1200
AGATGCGACA ATTGAAGCTC TTGGTCAAGC AGCGAGAGTG ACCGTGGACA AAGATAGCAC	1260
GGTTATTGTA GAAGGTGCAG GAAATCCTGA AGCGATTTCT CACCGTGTG CGGTTATCAA	1320
GTCTCAAATC GAAACTACAA CTCTGAATT TGACCGTGAA AAATTGCAAG AACGCTTGGC	1380
CAAATTGTCA GGTGGTGTAG CGGTTATTAA GGTGGAGACC GCAACTGAAA CTGAGTTGAA	1440
AGAAATGAAA CTCCGATTG AAGATGCCCT CAACGCTACT CGTGCGCTG TTGAAGAAGG	1500
TATTGTTGCA GGTGGTGGAA CAGCTCTTGC CAATGTGATT CCAGCTGTTG CTACCTTGA	1560
ATTGACAGGA GATGAAGCAA CAGGACGTAA TATTGTTCTC CGTGCTTTGG AAGAACCCGT	1620
TCGTCAAATT GCTCACAATG CAGGATTTGA AGGATCTATC GTTATCGATC GTTTGAAAA	1680
TGCTGAGCTT GGTATAGGAT TTAACGCAGC AACTGGCGAG TGGGTTAACA TGATTGATCA	1740
AGGTATCATT GATCCAGTTA AAGTGAGTCG TTCAGCCCTA CAAATGCGAG CATCTGTAGC	1800
CAGCTTGATT TTGACAACAG AAGCAGTCGT AGCCAATAAA CCAGAACCAG TAGCCCCAGC	1860
TCCAGCAATG GATCCAAGCA TGATGGGCGG GATGATGTAA GCTTCTTATA GAAAACAACT	1920
TATAAAAAAC ACAAAGGAG GGAATGACTA ACCCTTCTTT TTATAGGCTC TTTGTCAACT	1980
GTAGTGGGTT GAAGTCAGCT AAGCTCGAGA AAGGACAAAT TTCGTCCTTT CTTTTTTGAT	2040
GTTCAAAGCG ATAAAAATCC GTTTTTTGAA GTTTTCAAAG TTTCGAAAAC CAAAGGCATT	2100
GCGCTTGATA AGTTTGATGA GATTATTGGT CGCTTCCGGT TTGGCGTTAG AATAGTGTAG	2160
TTGAAGGGCG TTGATAATCT TTTCTTTATC TTTGAGGAAG GTTTTAAAGA CAGTCTGAAA	2220
AATAGGATGA ACTTGCTTAA GATTGCTCTC AATAAGTCCG AAAAATTTCT CCGGTTCTCT	2280
ATTCTGAAAG TGAACAGCA AGAGTTGATA GAGCTGATAG TGATGTTTCA AGTCTTGTA	2340
ATAGCTCAAA AGCTTGTCTA AAATCTCTTT ATTGGTTAAA TGCATACGAA AAGTAGGACG	2400
ATAAAATCGC TTATCACTCA GTTTACGGCT ATCCTGTTGT ATGAGCTTCC AGTAGCGCTT	2460

630

GATAGCCTTG TATTCATGGG ATTTTCGATC CAATTGGTTC ATAAATTGAA CACGCACACG	2520
ACTCATAGCA CGGCTAAGAT GTTGTACAAT GTGAAAGCGA TCCAACACGA TTTTAGCATT	2580
CGGGAGTGAA ACAGTCTGGG AGACTGTTTC AGCCTGAGCC TAGAAATTG AAAGCGAAGC	2640
TGTTTAGCCA AGTCATAGTA AGGACTAAAC ATATCCATCG TAATGATTTT CACTTGACAA	2700
CGAACGGCTC TATCGTAGCG AAGAAAGTGA TTTCGGATGA CAGCTTGTGT TCTGCCCTCA	2760
AGAACAGTGA TAATATTAAG ATTATCAAAA TCTTGCGCAA TGAAACTCAT CTTTCCCTTA	2820
GTGAAGGCAT ACTCATCCA AGACATAATC TTTGGAAGCC GAGAAAAATC ATGCTCAAAG	2880
TGAAAGTCAT TGAGCTTGGC AATGACAGTT GAAGTGAAA TGGCCAGCTG ATGGGCAATA	2940
TCAGTCATAG AAATTTTTTC AATTAACTTT TGAGCAATCT TTTGGTTGAT GATACGAGGG	3000
ATTTGGTGAT TTTTCTTTAC CAGGGGAGTC TCAGCAACCA TCATTTTTGA ACAGTGATAG	3060
CACTTGAAAC GACGCTTTCT AAGGAGAATT CTAGAAGGCA TACCAGTCGT TTCAAGATAA	3120
GGAATTTTAG AAGGTTTTTG AAAGTCATAT TTCTTCAATT GGTTTCCGCA CTCAGGGCAA	3180
GATGGGGCGT CGTAGTCCAG TTTGGCGATG ATTTCTTGT GTGTATCCTT ATTGATGATG	3240
TCTAAATCT GGATATTAGG GTCTTTAATA TCGAGCAGTT TTGTGATAAA ATGTAATTGT	3300
TCCATATGAA TCTTTCTAAT GAGTTGTTTT GTCGCTTTTC ATTATAGGTC ATATGGGACT	3360
TTTTTTCTAC AACAAATAG GCTCCATAAT ATCTATAAGG GATTTACCCA CTACAAATAT	3420
TATAGAGCCG AAAATTCACA TCTAATATAT GCAGACTACT TTGAAATGAA ATTAAAAAA	3480
TTATTAAAGG ATGACACAAA AGTTTTTGAA AAATCTACAT TCAAATTGT AGAAGGATAT	3540
AAAATATACC TGACAGAATC TAAAGAATCT GGAATTAAC AAATGGACAA TGTCATAAAA	3600
TATTTTGAGT TTATTGAATC TAAAAGTATT GCTTTATATT TTCAAAAACG ATTAAATGAG	3660
CTGATAGATT AAATAGCATT TTCTCTGTTG AGATATTGTT TTAAAAATAT TGTAATAAAT	3720
GATTGATGCT ATGTGGAAT ACAAAAAAAT GTTTTGTATA CGAAGTTGAC CTGTATTTT	3780
TATACTAATC ATTTTCGTAT TTTTGTATT AAACGATATA AGTTTGTGT AAACCTTACAA	3840
GGAATAAGA CATTAAAAA TAACAGTATA TCTATTTGTT TTATATATTT TACGAATTCT	3900
GCATAAATCT CTTTCTAGTA ATGTGTTGTA ACTCTGCTAT AATAGATTTA TTCCTTTTGT	3960
TGTTTACACA ATTTATTTTA TAGTACCAA AAAGTCCAGG ATTTTGTTC TGACCTTTGA	4020
CAACTTTACC GATTCTTTAG TTCTACATAG CGCTGTACC AAATGTTTAC ATAGGCTTCT	4080
GAGAAAGGAC CACGTCCATT GTTAATCCAA TCAACAAGAA TTTTGACATG TTCTTTTAAA	4140
ATATAGTCCA AGTCATCAGA ATAATTCATT TTGCGTTTGT GACGCTCGTA CTCCTCAACG	4200
TCCAAGAGAC GTTTTCCCC ATCTGTAAAA ATTTTAACAT CCAATCGTA ATCAATATAC	4260

631

TTCAGTGCTT CTTCATCCAG ATAGTAGGGG CTAGCCATAT TGCAATAGTA AGAAGTTCCA	4320
TTATCACGAA TCATGGCAAT GATATTAAAC CAATATTTCT TGTGAAAGTA AACAATAGCC	4380
GGTTCTCGAG TGACCCAACG ACGACCATCA CTTTCGGTAA CAAGTGTATG ATCGTTGACA	4440
CCAATAATGG CGTTTTCTGT TGTTTTGTAGT ACCATGGTGT CCCGCCAAGT TCGGTGGAGA	4500
CTCCCATCAT GCTTATAACT TTGAATTGTA ATAAAGTCGC CTCTTTTGG AAGCTTCATA	4560
ACTAACCAAC TTTCTACAAT TTATAAGTTT ATCATTACT ATTGTACCAT AAAATTACCC	4620
AAAATCTGTG AATTTCACTT GGAAATATTA AAGATATTCT CTAAGAGCGC TTGCTATATC	4680
CGAAAAATCG TAGCCCTTTC GTGCTAAAAC TTGAGTTAAA CGCTGCTTCA GTTCGTATCC	4740
TTCATACTTT CGGGCATACT TAGTATATTG CTTATCAAGT TCCTTGAAGA TGAGTTCCTG	4800
AGTCGTTTCT TCATCAACTT GACTATCCAA TTCGTCAAAG GCAATTTTAG CATCAAAATA	4860
AGAGAAGCCC TTGTTAGTCA AGTCTGGAT AATCTTATCT TGCAGGGCAC GAGCTGGAAG	4920
TTTTCCCTCA TATTTTTTCA ATAGTTTATT GGCTACACGT TGAGCAACTT CCGAAAAATC	4980
AAAATCATTC AAGATTTCCT CTATAGTAGA TTTTGAAATT CCTTTTGTG CTAATTTCTG	5040
AGTCAGTACA TAAGTCCCT TGTCTCCTGA AAGTTGATTG GCATTGATGA TAGCATAAGC	5100
GTACTGGCTA TCATTAATCC ACTTCTCTTC TTTAAGATTA GCAATGACTT GAGAAACGAT	5160
GTTTTCATTA ATATCATATT TTTTCAGATA TTCTCTGACC TCTTTTTCAG TACGTGCTTT	5220
AAAGGATAAG TGGTAGAGG CCAGATTCTT ACCATAAGAA AATTGAGCAA AGTCTTGAAT	5280
CTCTTTCAAT TCCTCTTCGC TTATCACCTT ATCTCTCGAT AACATAAAAC GAACAATTGT	5340
GTCTTCGGTG ATATAGCATT TGTCG	5365

(2) INFORMATION FOR SEQ ID NO: 78:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3636 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

TTTCCAGAAA GAAGTTGAGT AAAGTCTTTA TCAAAGAGAA TGACTTCCGT ATTGGAAGTG	60
ACATTAGGTT TTATTTCTAC TTTACTAGCG TCCGCCCTAG CATTTTCTAA ATCTTTAATC	120
TCTTCTGTTG CCCTATTTAT AGCCAGCTGA ATAACTGCTT GAGGATTTTC ACTCAGTCCA	180
TGAAGCTTAT CGTCCACCGA AGTATAAAGA CTCGAATGCA TGACTTGTA AATAATCAGA	240

632

GTCATTGTAG AAAAAATCAG GGTGAAGACA CCGAAGTTGC GGATAAAATA ACTAAAGTCA	300
TCCGCATACC ATGTTTTTTT AAGTTTACTG AACATCTTTT AAAAGATACC CAACACTACG	360
CAAAGTTTGC AAATTCTCTG CAAAAGTGGT TCCCTTTAAT TTCTTACGGA CTTTGTAAAC	420
ATAGACTTCG ACAACCGAAA TCGTTGTATC ACTATCAAAT CCCCATAGAC GGTCAAAAAT	480
CTGCGTCTTA GGC AAAATCA CATTTTGATT TTGAAGGAAA TAAACTAGTA AATCGAACTC	540
TTTCCCAGC AATTGACAG GAGTATCTTC AACTTTAACG GTATTGGTTG ATAAATTAAC	600
CACGATATTC CCATAAGTCA AGGTGTTTTT ATTAACTTC CCTGAACGTT TGAGAAGGGC	660
CTGAATCCGC ATTTTAAGTT CTTCTAGGTA GAAAGTTTG GTCAGATAAT CATCCGCTCC	720
CAGTTCAAAT CCATGTCCCT TGTCAATCAA ACTTTCCTTG GCAGTCATAA TCAGAACTGG	780
TGTCGTAATT CCCTTTTCAC GCAATTCTTT TAAGACTTGG AAACCATTTT TTTCTGGCAA	840
CATCAAATCC AGCAAAATCA AGTCATAGAC ACCACTCTCA GCTTCGTAGA GACCTTCTTC	900
TCCATCAAAT ACCTGCATAA CATCCGCAAA ATCGTCTAAA AAGTCAAATA CTGAATTTGA	960
CAGACCTAGG TCATCTCAA CCAATAAGAT TTTTATCATG AGAACTCCT CTTTATTA	1020
ACTATTATAC CAAATTTGCC TTA AAAAAA CTCAACTCTC TGCATTTTAC ATGAGATAGC	1080
TGAGTTTCT TTTTATTTTA GGCTTATTTA TGCATTTCCG TATTGAAGAA CAACTGCTTC	1140
GACTGCAGCT TTTTCACGGC TAATCAAGTC AACACGCGCT GCAATTTCCCT TGATTCCCAT	1200
ACCGATGTTA CGGCTAAGAG CAAGGTCAGA AAGTTGCGGT TCAAAGAACT CTTGTATTTC	1260
CGCCAAGCGT TGCTGAGTCT TAAATACATG AGCAGGAAGG ATAACAAAGC TATCAAAGCT	1320
CATATCTCCT CCAAGGGCTG CCTTAATCCA AGCCAGTTT TCACGCGCCC AAGACCAAGC	1380
TGTTTTCTGA GTTGCTTGAT GAGCTAGGAA TTGGTAATAC CAAGCAGACA AGTCCTGTGG	1440
TTTGACCACA AATTGTCTCT TCCAAGAAGT AATCAGGTTT TGGATATTAT CCGCATCTGT	1500
ACTGTATGCA AGAGCTGCTG CCAACTGGCG TTAAAGACA GCATCTGTTG CGTGAGTATA	1560
AGTATCAAGA TAAAGTGCTA ACAAGTCTTT AGTCTCATGA TGTTTCATCT CATTAAATCAG	1620
AACTGTGAG CGAATAGCTG CTGGGAGTCC TGCAAGATTC TCCTTGTGTG TTGCGAAGAT	1680
TTGGCTAGCG ACTTGACTAG CTTCTGCATC ATTTGAGCGA ATCATCATCG AAACAGCCAG	1740
CTGACGAACC AATTCATCCT CATCTGATTC TCCGTCTTTA GCTTCAAAAC CAAGACGGTC	1800
ATAGTTATGA CGAGCCAATT TAGCAACCAG TCCTTTGAAG GCTGTTTCAG CATCCGTTCC	1860
TTTCAATA AAGCGCTCAA GGGCTGAAAT CACTTGAGAA ACAGCTGAAA CCACCAGATA	1920
AGACTCTTCC TTAGCAAGTT TATCAAGAAC TGGAAGCAAG TCTGCATAAG AAATGTGCCC	1980
TGCCTCAGCC AACAAACGAC GTTCTTGAAC AATTGTCAGT TTGCTTGTGT TATCAAGTGT	2040

633

CTCTAGCTCA GCAAGAACAG CTGCTAACAA GTCTCCTTGA TAGTCGGTAA TATAGTGGGC	2100
AGTATTTTCA GTGTTGAGAC GAAGAGCTCC TTCATTTTCA GCAAGAAGAG CTGCGTAGCC	2160
AGGGATTTTCG ATACTTTCAG TTTCGAGTGT ATCAGGCAAG CCTTCCAGT TGCTATTGAG	2220
GGGCACCACC CAGAGACGGT TCTTGTCCTC GTTCTCACCG ATGAAGAATT GTTTTGTGA	2280
AATCTTCAAG ACATCATTTT CAACTTTAAC AGTAAGAACT GGGTAACCAG GCTGTTCCAA	2340
CCAAGAATCC ATGAAGGCTG CGACATCACG TCCTGACGCT TGACCAAGGG CATCCCAAAG	2400
GTCACTACCA ATGGTGTGTC TGTATTGGTG TTTTCAAAG TAGGCGTGCA AACCTTTAGC	2460
AAAATCAGCA TCTCCTAGCC AACGGCGAAG CATGTGCATG AGACGGCTTC CTTTGGCATA	2520
GACGATAGCG CCGTCAAAGA GTGTATTGAT TTCATCTGGA TGTTTAACTT CGACGTGGAC	2580
AGACTGAACG CCATCAGTAG CGTCACGTTT AAGAGCAAGA GGTACTCCAC CTGTTTGGAA	2640
ATCTTCAAAG ATATTCCAGC TTGGTTCGAT GGTATCCACA CAGACGTATT CCATCATATT	2700
AGCGAAACTT TCATTGAGCC AAAGGTCATC CCACCATTTT ATAGTCACGA GGTTCCTCAA	2760
CCATTGGTGA GCCAATTCAT GGGCCACAAC AAGGGCAACT TGTTGACGGC TAGCAAATGT	2820
AGAGTCTCTA TCGACAACCA AGTAACTTC ACGGTAGGTC ACAAGACCCC AGTTTTCAT	2880
AGCACCAGCT GAGAAGTCAG GAAGGGCGAT GTGGAGAGAT TGAGGAATTG GGTACTTAAC	2940
TCCATAGTAA TCTTCGTAAG ACTCGATAGA GCGAACAGCG ATATCCAGTG AGAAATCAAG	3000
ATTTGAAAGT GGATGTGCTT TGGTTGAGTA GACACCTACC AGGGTACCAT TTTTAGTTT	3060
AGCGGTCACC CCTTGCAAAT CACCAGCAAC AAAGGCCAAC AAGTAAGAAG ACATGCGAGG	3120
TGTTGTCTCA AACTTCCAGA TACCTGTTTC CTTACGGTTT TCAACATCGA TTTCTGGCAT	3180
GTTCGACAAG GCCAATTCAC CTTCTGCTTG GTCAAAGCGA AGAGAGAGGT CAAAAGTTGC	3240
TTTGGCTTCA GGCTCATCCA CACATGGGAA AGCTTCGCGC GCAAAATGGC TCTCGAACTG	3300
AGTAGACAAG ACCTCCTTCT TGACTCCATC AACTGTATAA TAAGAAGGGT AAATCCCTGT	3360
CATGTTGTCT GTAATTTTAC CAGAAAAGGC AAGAACCAAT TCAACTTGAC CAGCCTCAGC	3420
CAATTGCGATA TGAAGGGCTT CATTGTCATG GTCAACTGTA AATGGACGAG CTTGACCTGC	3480
AACTTCTACA GAGTGATTT CCAAATCTTT TTGGTGGAGG GAGATGCGGT CACTCTGTGC	3540
TTGACCAGTG ATGGTCACTT TCCCAGAAAA AGTCTTGCTC TCACGACTCA AATCTAAAAA	3600
TAAATCATAA TGTTCAGGAA CAAATTGCTT AATGGG	3636

(2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5066 base pairs

634

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

ATAGCGTGTA ATAATCGATT TTAGAGGTAC CATAAGCCAC CTCCTACAAA TAGAAACCGA	60
TATAAATCAA TGCCTTCCAC CCTTAGACTT CCCTAGTTCC TGTCTCAAGC GAAACATTTT	120
TTTGAAACAG GAATAAGTTA ACCAATTCAT ACCAATAGCT AGCAGAATAA AAAGAAACCA	180
AATGCCCCAT AACTTGATAT CTGTCACATT TCTCAAGACG GTATTGAAA ACAGAACTGA	240
AACAACGTGC CAAGCAAGGC TAAAAAGAGA ATAGAAGGGG ATGTAAAACC AGTAAAAATA	300
ATAAAAAATT GAAAAAACT TACTATTTCT GTTGGCCTTT TCAATCCAGT TATCAAAATA	360
AAAGTACGGT GCTAAAAGTA AGAATTTAAA CAAATGTTCC ATCACCAGCA TCCCCCCTTC	420
TTTTGATAGC GTTTTCTATT ATTTTATTAT ATCAAAAAA TCCGGAACG TCATTCCAGA	480
TTCTACTTTT TTATTGCGT TTTCTTGCGA TGAGATGAAT CGGTGTTCCC TCAAAAACAA	540
AGGCCTTGCG GATTTGATTT TCCAAGAAAC GCAGGTAAGA AAAGTGCATG AGTTC'TCTT	600
CATTGACAAA GATGACAAAG GTTGGTGGTT TGTTGCCAC TTGGGTCGCA TAGAAAATCT	660
TGAGACGTTT TCCTTTGTCT GTCGGTGTG GGTGATGGC AATGGCATCC ATGATGACAT	720
CGTTCAAGAC AGCTGATGGA ATACGTGTAT TTTGACTTTC GCTGATTGC TTAATCATCT	780
CAGGAAGTTT GTGGAGACGT TGCTTGGTTA AAGCTGATAC AAAGATAATC GGTGCGTAAG	840
GCAGGTATTG GAACTGCTCA CGGATATCTT CTTCCCAGTT TTTCATAGTG TGGTTATCTT	900
TTTCAAGCGT ATCCCACTTG TTGACCACGA TAATCATCCC TTTACCAGCT TCATGGGCAA	960
ATCCTGCGAT ACGCTTGTCG TACTCACGAA TGCCTTCTTC CGCATTGATG ACCATCAAGA	1020
CCACATCTGA ACGGTCAATA GCACGCATGG CACGCATAAC AGAGTATTTT TCAGTATTTT	1080
CATAAACCTT ACCAGACTTA CGCATACCAG CCGTATCAAT CATGGTAAAC TCTTGACCAT	1140
CTGTATCTGT AAAGTGGGTA TCAATGGCAT CACGAGTTGT TCCAGCAACA GGACTAGCAA	1200
TAACACGGTC TTCTCCAAG ATAGCATTGA TCAAGCTTGA TTTTCCAACG TTAGGACGAC	1260
CAATCAAGCT AAACCTAATG ACATCTGGAT TTTCTTCCTC ATATTCATTT GGAAGATTTT	1320
CTACGATCGC ATCTAGCACA TCCCCTGTAC CGATTCCATG GACAGATGAG ATAGGCAATG	1380
GTTCACCCAA ACCGAGAGCA TAGAAATCAT ATATATCATT TCTCATCTCA GGGTTGTCCA	1440
CCTTGTTGAC TGCAGAGATA ACTGGTTTGT GGGTCTTATA AAGCTTACGA GCTACGTATT	1500
CGTCTGCATC AGTAATTCCT TCCTTACCAG ACACGACAAA AACGATAACA TCTGCTTCTT	1560

635

CCATGGCAAT TTCTGCCTGG TGCTTGATTT GTTCCATGAA AGGAGCATCG ACATCATCAA	1620
TTCTCTCTGT ATCAATCATG CTAAAAGAAC GATTGAGCCA CTCACCCGTT GCATAAATAC	1680
GGTCACGTGT CACTCCTTCG ACATCTTCTA CAATGGAGAT TCGCTCACCA GCGATCCGAT	1740
TAAATAGGGT TGATTTCCCA ACATTGGGAC GTCCTACAAT GGCAATAGTT GGTAGGGCCA	1800
TAATTTCTCA CTTTCTACAA TAATTTCTTC TGTTCAGAT TTTTCTAGT TGAGCTTGGT	1860
TCAGCTTGAC CAAACTGTTT TGCTAGGCGC TGAATCCAGC TTGTGGTCGC ACGCGCCCCA	1920
GCATAGTCAG CCTGAACACG GTCATAAGCT TGGATTGCCT CAGTTGACTG TTCTTGGTAT	1980
TCCTCCTCAA AGACAACATT CTCTAGTGGC AGTCTCGGTT TCATATCATG ATGTTGATTT	2040
GGCACACCCA GTGCCATCCC AAAGACAGAA TAGGTGTAGT CAGGTAGGTT AAAGAGCTCT	2100
GCCACTTCTT CAGACTTGTA TCGAACCAAA CCGATAATCA CACCACCATA GCCCAAGCTT	2160
TCAGCTGCCA ACAAGGCGTT TTGTCCAGCA AGAGCTGCAT CGACCGAACT AATCAAGAGA	2220
CCTTCCACAC CTTGGGGTTG GAAGGTGTCG GTATGAAGTC GGGCTCCCTT TTCTGCTCGG	2280
TTCAAATCTC CGACAAAGAG AAGGAAAACA GCAGACTGGC GAATGGCTTC TTGAGGTACC	2340
AATTCATACA AGGCATCTTT CTCTCTTGA CTTCGTACCA CAATCACAGA GTAGGATTGG	2400
AAATCTCTCC AAGATGATGC CATCTGGGCT GCTGTCAAAA TCTCATTTAA GTCTACTTGG	2460
GGAATTTCTT GCTCTTTAAA CTTGCGCACT GAAGTATGAG CCTTCATCAA TTTAATGGTT	2520
TCGTGCATCG ACGGTTTACT CCTTCTAAAC GAGTCTCCTC AGCCAAATAA CGGATGCGTT	2580
CCATGACCCG TCTGGCTTCC CAGGTTTCGT CATTTCCATG TTTCACTTTC GCAAAATGCT	2640
TCTCCAAATC TTCAAAGTTG AAGTTGGATG TGAAAAGGT CGGTAAATTT TCCTGCATCC	2700
GATATTGGAG AATGACCTGC AGGATTTTCGT CACGCACCCA AACGGTTGAT TGCTCGGCGC	2760
CAATATCATC TAAATCAGG ACCTCAGACA GCTTAATCTC ATCCACCAAG GTCTTAACAT	2820
TGCCATCACT GATAGCATTT TTGACATCAA TGACAAAGCT AGGATAGTGG AGGAGAGTTG	2880
ATGAAACACC ACGTTTTTCT GATAAATCAT GAGCTAAGGC CGCCACCATG AAACTTTAC	2940
CCACACCAAA GTCTCCATAT AAGTAAAGAC CTTTTCGAAT AGCTGGATAT TGCTCCACGA	3000
AGGCTAGTAG CTTTTCAAAA ACTGGTAAGC GCCCAAATC ATCCAAGTCA ACTTGAGCCA	3060
AACTAGCTTT CTTGAGACTG GCTGGTAGAT TGATTAACCT GAGACGGTTC TTAATAGCCG	3120
CTTCTTTTTC AGCCGCGATT AGCTCAGGAG TTTCTTCATA TGAAACATCT GCATAACCAT	3180
GATTCTTAAC CAAAATCGGC TTGTAGCCTT TGGCAATATA ATCCGTATCC CCACGGAGAA	3240
ACTTGTCACG CTCGGTGATG TACTGATTAA ACTTGAGAT ACTGCGATT AATTCCTTTG	3300

636

GAGTTAAGGA TTCTTGCTGG ATAAAGGCCG CAACATCAGG GTCCTTCATG ATTTTCTGGA	3360
CCAAATCTTG ATAATAAAAA CGGCTGGGTT GACGTTTGAG TACGTCTCCG ACACTTTCCA	3420
TCTAATCTCC TCCTTTTCT AATCGAGCTA ATAGTTCTTG CTTCCTACGT TCTAGTTCCA	3480
GACGAGTTT CTCGCTGGTT TCATTCTTAT ATT'CAGGATT ACTCCATTTA GGAACATTGG	3540
TTTTTCTGG GGCAGTCTGA TTCTGTTTTT GTGTTTTTGC TTTCTGCCCT CGATCACGAA	3600
TTCGTAAAC GGCCTCTTCT GCCGAATGAA TCTTTTGATA GGCATAGTCA TTGGCTACCT	3660
TCATGGCATA TTTCTCATTG ATATTGCGG AATCCACCTT ATTAAAGGTC AATAAGAGAA	3720
TAATATTGAT GACTTCGTCC AGTAAGCCCA AGCCAGCCAT CTGTTGCAAG AGTTCTCTTT	3780
CTGTTGGGT AATGGTTCCC TTGCGTGTTT GCTTGATTTT TGCTAAGAAC TGCAGGGCAG	3840
TTTACTTTT AGCTTCTTTG ATAATGGTCG CTTCTTAAG ACTAAAGTCA GAGGAACTG	3900
GTTTTTGAGC AATTTTTTCA CGCATGCGTT TGGTTGAAAT AACCTGGGAA ACAGCTGTTG	3960
ACTTGCCAA TTGATAGGTT TCAAACCAAG TCCATTTCTT CTCCTCGGCA ATAGCAAAGA	4020
GGTTAAGAC ATCGGACTGC TCATCCGCAA AACGAAGTCC ATCTCGAGCC ATCAGCTGGC	4080
GAAAATGTTT CAAGTCAAAA TCATTGGCCA CTTTCTTCTT GAGACCAAGG TCTTCTTGAC	4140
TGCCTAGTTC TGCCAATTCT GGAAAGACTT GATTGAGTGA GACAGGTATT TCTTCACCAT	4200
CAGCACTTTC AACTTTCAA TCCTCCACAG CTACATCGCC AATCTTTTTC TCTAAGAGTC	4260
TGCGATAAAC AGGATGCCCC AAGAAGTCTT GACTAGATAG AGGAGCATGG AGGGCTAGCT	4320
GATAAACATC ACCCTTTTGA TAGAGGGTCA AGAGATTAAG AGCAGATAAG ATTTTCAATG	4380
ATTTTATCAG TCTATCCATC CCAAAGTTGA GATGGTTGAG AATGCTTGAA AAAAGATATT	4440
CCTTTCTACC ATTTATCCCA AACTGATTG TATAAAGATA AAGGCTCAGT GCCTCCTGAC	4500
CGATAATCGG GAGGTAGCAC TGTACCAGAG ATGAGGTATC TTGCGACACC CGATTATTCT	4560
TTAGATAAGA AAAACGGTCA ATTGGCTTCA TTTATCTTTC CTTTTCCTTT TTAGAGGACT	4620
GGGTGATTTG TTGGAGCAAG CTCTCTAACT CACTGACATC CTTAAACTA CGATAGACAC	4680
TAGCAAAACG TACATAGGTA ATCTCGTCCA ATTCAGCCAA CTCCTCCATG ACGAGTGAAC	4740
CAATGTCCTC ACTTTGAATT TCATTTTCAT TTCGACCAGG GAGTTTCTGT TCGATACGAT	4800
TGACTACCAT GTTGATTTCA TCACTTGACA CAGGACGTTT CTGGGCTGAG CGGATAATCC	4860
CATTAAAGAT TTTATCTCTG GAGAATTGTT CCCGTGTGCC ATCTTTTTTA ACAACCACTA	4920
AGGTTCCTTC TTCTACTCGT TCGTAGGTTG TAAAACGGTG TTGGCATTCTG TCGCACTCAC	4980
GTCTTCTACG AATGGTGTTT CCTTCTTCTG CTTGGCGACT ATCGATAACA CTTGACTTGG	5040
TAGCCCCACA TTTTGGACAG GGTACC	5066

637

(2) INFORMATION FOR SEQ ID NO: 80:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9607 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

CACTTGAAGT ATTTGAAACA GCTATGGAAA ACATCATGCC TGTACTTGAA GTACGTGCAC	60
GTCTGTGTGG TGGTCTTAAC TACCAAGTCC CAGTTGAAGT TCGTCCAGAA CGTCGTACAA	120
CACTTGGACT TCGTTGGTTG GTAACAATCG CTCGTCTTCG TGGTGAACAC ACAATGCAAG	180
ACCGTCTTGC AAAAGAAATC TTGGATGCTG CTAACAACAC TGGTGCAGCA GTTAAGAAAC	240
GTGAAGATAC TCACCGTATG GCTGAAGCTA ACCCTGCATT CGCACACTTC CGTTGGTAAG	300
ATAGGATGCG AAAGCGTTAA GAAAGTCCCA GAGAAAATAG GGAATCGAAG CAGGTTGCGG	360
TTGCAACCAA TGAGATTCAT CTTTTTCTCC AGACTTTTAG CTTGAGCTCA ACTAAATCAT	420
GATGCTAGGA ACGGTAAGGA TGCAAGGTAA AAATAGGAAA CTGACGCAGT ATTCGACGAA	480
TACAAGGAGT TTTATCTTTT TCACGCAGCA TCCCGTTCCA GCTCACATCG GCTAACTAAC	540
TTTAGCCCGG GTTCAAATTA GCTAAATCGA TTAGTATTAG CTATAACTCA GCTTACCATC	600
TCGTAAGTTG AAACCAACAA TAGCATGAAA ACATTGAGAA CGGGTAGGTC CTGCCTATCC	660
GTTTTTATTA AAATCGTGTT ATAATAGAAT AGAAATCAAA AATAAATAGG AGAAACAAAC	720
CTCATGGCAC GCGAATTTTC ACTTGAAAAA ACTCGTAATA TCGGTATCAT GGCTCACGTC	780
GATGCCCGTA AAACAACAAC TACTGAGCGT ATTCTTTACT AACTGGTAA AATCCACAAA	840
ATCGGTGAAA CTCACGAAGG TGCCTCACAA ATGGACTGGA TGGAGCAAGA GCAAGAACGT	900
GGTATCACGA TCACATCTGC TCGGACGACA GCTCAATGGA ACAACCACCG CGTAAACATC	960
ATCGACACAC CAGGACACGT GGACTTCACA ATCGAAGTAC AACGTTCTCT TCGTGTATTG	1020
GATGGTGCGG TTACCGTTCT TGACTCACAA TCAGGTGTTG AGCCTCAAAC TGAAACAGTT	1080
TGGCGTCAAG CAACTGAGTA CGGAGTTCCA CGTATCGTAT TTGCCAACA AATGGACAAA	1140
ATCGGTGCTG ACTTCCTTTA CTCTGTAAGC AACTTCACG ATCGTCTTCA AGCAAATGCA	1200
CACCAATATC AATTGCCAAT CGGTCTTGAA GATGACTTCC GTGGTATCAT TGACTTGATC	1260
AAGATGAAAG CTGAAATCTA TACTAACGAC CTTGGTACGG ATATCCTTGA AGAAGACATC	1320
CCAGCTGAAT ACCTTGACCA AGCTCAAGAA TACCGTGAAA AATTGATTGA AGCAGTTGCT	1380

638

GAAACTGACG AAGAATTGAT GATGAAATAC CTCGAAGGTG AAGAAATCAC TAACGAAGAA	1440
TTGAAAGCTG GTATCCGTAA AGCGACTATC AACGTTGAAT TCTTCCAGT ATTGTGTGGT	1500
TCAGCCTTCA AAAACAAAGG TGTTC AATTG ATGCTTGATG CGGTTATCGA CTACCTTCCA	1560
AGCCCACCTG ACATCCCAGC AATCAAAGGT ATTAACCCAG ATACAGACGC TGAAGAAATT	1620
CGTCCAGCAT CTGACGAAGA GCCATTTGCA GCTCTTGCCCT TCAAGATCAT GACTGACCCA	1680
TTCGTAGGTC GTTTGACATT CTTCCGTGTT TACTCAGGTG TTCTTCAATC AGGTTTATAC	1740
GTATTGAATA CTTCTAAAGG TAAACGTGAA CGTATCGGAC GTATCCTTCA AATGCACGCT	1800
AACAGCCGTC AAGAAATCGA CACTGTTTAC TCAGGTGATA TCGCTGCTGC CGTTGGTTTG	1860
AAAGATACTA CAACTGGTGA CTCATTGACA GATGAAAAAG CTAAATCAT CCTTGAGTCA	1920
ATCAACGTTT CAGAACCAGT TATCCAATTG ATGGTTGAGC CAAAATCTAA AGCTGACCAA	1980
GACAAGATGG GTATCGCCCT TCAAAAATTG GCTGAAGAAG ATCCAACATT CCGCGTTGAA	2040
ACAAACGTTG AAACCTGGTGA AACAGTTATC TCAGGTATGG GTGAACTTCA CCTTGACGTC	2100
CTTGTGATC GTATGCGTCG TGAGTTCAAA GTTGAAGCGA ACGTAGGTGC TCCTCAAGTA	2160
TCTTACCGTG AAACATTCCG CGCTTCTACT CAAGCACGTG GATTCTTCAA ACGTCAGTCT	2220
GGTGGTAAAG GTCAATTCCG TGATGTATGG ATTGAATTTA CTCCAAACGA AGAAGGTAAA	2280
GGATTGCAAT TCGAAAACGC AATCGTCGGT GGTGTGGTTC CTCGTGAATT TATCCCAGCG	2340
GTTGAAAAAG GTTTGGTAGA ATCTATGGCT AACGGTGTTC TTGCAGGTTA CCCAATGGTT	2400
GACGTTAAAG CTAAGCTTTA TGATGGTTCA TATCAGCATG TCGACTCATC TGAAACTGCC	2460
TTCAAGATTG CGGCTTCACT TTCCCTTAAA GAAGCTGCTA AATCAGCACA ACCAGCTATC	2520
CTTGAACCAA TGATGCTTGT AACAATCACT GTTCCAGAAG AAAACCTTGG TGATGTTATG	2580
GGTCACGTAA CTGCTCGTCG TGGACGTGTA GATGGTATGG AAGCACACGG TAACAGCCAA	2640
ATCGTTCGTG CTTACGTTCC ACTTGCTGAA ATGTTGCGTT ACGCAACAGT TCTTCGTCT	2700
GCATCTCAAG GACGTGGTAC ATTCATGATG GTATTTGACC ACTACGAAGA TGTACCTAAG	2760
TCAGTACAAG AAGAAATTAT TAAGAAAAAT AAAGGTGAAG ACTAATCCGT CCTCACTCTA	2820
GAAGGAAGTC ACTTAGTGGC TTCCTTTTGT CTTTAGAAAA TACCTCTAAA TATGGTAAAA	2880
TAGTAGAAGA ATAATGTGAG GAAAATGAAT GTCAAATAGT TTTGAAATTT TGATGAATCA	2940
ATTGGGGATG CCTGCTGAAA TGAGACAGGC TCCTGCTTTA GCACAGGCCA ATATTGAGCG	3000
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ACCGATTGAA ATCTTTTATG AATTAAAGAA AGGTTTGAGC GAAGAATTTT CTAAGACAGG	3120
CAATAAGCT GTTTTGTAAA TTAAGGCTCG GTCTCAAGAA TTTTCAAATC AGCTCTTGCA	3180

639

GTCCTACTAT AGGGAGGCTT TCTCTGAAGG TCCATGTGCT AGTCAAGGTT TTAAGTCCCT	3240
TTATCAAAAT TTGCAAGTTC GTGCTGAGGG TAATCAGCTA TTTATTGAAG GATCTGAAGC	3300
GATTGATAAG GAACATTTTA AGAAGAATCA TCTTCCTAAT TTAGCCAAAC AACTTGAAAA	3360
GTTTGGTTTT CCAACTTTTA ACTGTCAAGT CGAGAAGAAT GATGTCCTGA CCCAAGAGCA	3420
GGAAGAGGCC TTTCATGCTG AAAATGAGCA GATTGTTCAA GCTGCCAATG AGGAAGCGCT	3480
CCGTGCTATG GAACAACCTGG AGCAGATGGC ACCTCCTCCA GCGGAAGAGA AACCAGCCTT	3540
TGATTTTCAA GCGAAAAAAG CTGCAGCTAA ACCCAAGCTG GATAAGGCGG AGATTACTCC	3600
TATGATCGAA GTGACGACAG AGGAAATCG TCTGGTATTT GAAGGGGTTG TTTTGTATGT	3660
GGAGCAAAAA GTGACTAGAA CAGGTCGTGT TTTAATCAAC TTTAAATGA CGGACTATAC	3720
TTCAAGTTTT TCTATGCAAA AGTGGGTAA AAACGAGGAA GAGGCCCAGA AGTTTGACCT	3780
CATCAAGAAG AATTCTTGGC TCCGAGTTCG AGGGAATGTG GAGATGAATA ACTTCACACG	3840
CGATTTGACT ATGAACGTAC AGGATCTGCA GGAAGTTGTT CACTATGAGC GGAAGGATTT	3900
GATGCCAGAA GGTGAGCGTC GGGTTGAGTT TCATGCTCAT ACTAACATGT CGACTATGGA	3960
TGCTTTGCCA GAGGTCGAAG AGATTGTTGC AACAGCTGCT AAGTGGGGAC ACAAGGCGGT	4020
TGCTATCACG GACCATGGGA ATGTCCAGTC CTTCCACAT GGCTATAAGG CGGCTAAGAA	4080
AGCGGGAATC CAGCTGATCT ATGGGATGGA AGCCAATATC GTGGAGGACC GTGTCCCTAT	4140
CGTCTATAAC GAAGTGGAGA TGGACTTGTC AGAAGCAACC TACGTGGTCT TTGACGTGGA	4200
AACGACGGGA CTTTCAGCTA TCTATAATGA CTTGATTGAG GTTGC GGCTT CTAAGATGTA	4260
CAAGGGGAAT GTTATTGCTG AATTGATGA ATTTATCAAT CCTGGGCATC CCTTGTGAGC	4320
CTTTACTACA GAGTTAACTG GAATTACAGA TGATCATGTC AAAAATGCCA AACCCTAGA	4380
ACAAGTTTTC CAAGAATTCC AAGAATTTG CAAGGATACG GTCCTAGTTG CCCACAATGC	4440
TACCTTTGAC GTTGGCTTTA TGAATGCTAA TTATGAGCGG CATGATCTTC CAAAGATTAG	4500
TCAGCCAGTT ATTGATACGC TGGAGTTTGC TAGAAACCTC TATCCTGAGT ATAAACGCCA	4560
TGGTTTGGGG CCTTTGACCA AGCGTTTGG TGTGGCCTTG GAACATCACC ACATGGCCAA	4620
CTACGATGCG GAAGCGACTG GTCGTCTGCT TTTCATCTTT ATCAAAGAGG TAGCAGAAAA	4680
ACATGGTGTG ACCGATTTAG CTAGACTCAA CATTGATCTA ATCAGTCCAG ATTCTTACAA	4740
AAAAGCTCGG ATCAAGCATG CGACCATCTA TGTCAGAAGT CAGGTAGGTC TAAAAAATAT	4800
CTTTAAGCTG GTTTCCTTGT CTAATACCAA GTATTTTGAA GGAGTGCCAC GGATCCGAG	4860
AACGGTTCTA GATGCCCATC GAGAGGGCTT GATTTTAGGT TCAGCCTGTT CAGAGGGTGA	4920

640

AGTTTTTGAC GTGGTCGTTT CTCAAGGTGT GGATGCGGCG GTTGAGGTGG CCAAGTATTA	4980
TGATTTTATC GAGGTCATGC CACCGGCTAT CTATGCACCC TTGATTGCCA AAGAGCAGGT	5040
CAAGGATATG GAGGAACTCC AGACCATTAT CAAGAGTTTG ATAGAGGTTG GAGACCGCCT	5100
TGGCAAGCCT GTTCTGGCTA CGGGAAATGT TCACTATATC GAACCGGAAG AAGAGATTTA	5160
TCGTGAAATT ATCGTCCGTA GTTTGGGACA GGGTGCGATG ATTAATCGAA CTATCGGTCA	5220
TGGTGAACAT GCCCAACCAG CACCACTTCC AAAGGCTCAT TTTCGAACGA CTAATGAGAT	5280
GTTGGATGAA TTTGCCTTTT TGGGAGAGGA ACTGGCTCGT AAAGTGGTTA TTGAAAACAC	5340
CAATGCCTTG GCAGAAATAT TTGAATCCGT TGAAGTCGTT AAGGGTGAAT TGTATACGCC	5400
TTTCATCGAC AAGGCTGAAG AAACAGTTGC TGAGTTGACC TATAAGAAAG CTTTGTAGAT	5460
TTATGGAAAT CCGCTGCCAG ATATTGTTGA TTTGCGGATT GAAAAAGAAT TAACATCCAT	5520
ACTGGGGAAT GGATTGCTG TGATTATCTT GGCATCGCAG ATGCTGGTGC AACGTTCCTA	5580
TGAACGGGGT TATTTGGTTG GTTCTCGTGG GTCTGTCGGA TCTAGTTTCG TTGCGACCAT	5640
GATTGGGATT ACGGAGGTCA ATCCTCTCTC TCCTCACTAT GTCTGTGGTC AGTGTCTAGTA	5700
CAGTGAGTTT ATCACAGATG GTTCGTACCG TTCAGGATTG GATATGCCCC ATAAGGACTG	5760
TCCAAACGTG GGTCAAAAC TCAGTAAAAA CGGACAGGAT ATTCCGTTTG AGACCTTCCT	5820
TGGTTTTGAT GGGGATAAGG TTCTTGATAT TGACTTGAAC TTCTCGGGAG AAGATCAGCC	5880
TAGCGCCAC TTGGATGTGC GTGATATCTT TGGTGAAGAA TATGCCTTCC GTGCGGGAAC	5940
GGTTGGTACG GTAGCTGCCA AGACTGCCTA TGGATTGTG AAAGGTTACG AGCGAGATTA	6000
TGGCAAGTTT TATCGTGATG CAGAAGTAGA ACGCCTCGCT CAAGGAGCGG CGGGTGTCAG	6060
GCGGACAACA GGCCAAACACC CGGGGGGAAT CGTTGTTATT CCGAACTACA TGGATGTCTA	6120
CGATTTTACG CCTGTCCAGT ATCCAGCAGA TGATGTCACG GCTGAATGGC AGACCACTCA	6180
CTTTAACTTC CACGATATCG ATGAGAACGT CCTCAAATC GATGTACTGG GACATGATGA	6240
TCCGACTATG ATTCGAAAAC TTCAGGATTG GTCTGGTATT GACCCTAATA AAATTCCTAT	6300
GGATGACGAA GCGGTGATGG CACTCTTTTC TGGGACTGAT GTGCTAGGGG TAACACCTGA	6360
ACAAATTGGA ACGCCTACCG GTATGTTGGG GATTCCAGAG TTGGAACAA ATTTCTGACC	6420
TGGAATGGTA GACGAAACCC ATCCGACAAC CTTTGCGGAA TTGCTTCAGC TGTCTGGTCT	6480
GTCCCACGGT ACTGATGTTT GGTGGGGGAA TGCTCAGGAT CTGATTAAGC AAGGAATAGC	6540
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TCTGGAACCT AAGATGGCCT TTACCATTAT GGAACGGGTA CGTAAGGGTT TGTGGCTAAA	6660
GATTTCAAGG AAGGAGAGAA ATGGCTATAT CGAAGCAATG AAGGCTAATA AGGTGCCAGA	6720

641

GTGGTATATC GAATCCTGTG GGAAAATTAA GTACATGTTC CCTAAGGCCC ATGCGGCAGC	6780
CTACGTTATG ATGGCCTTGC GTGTAGCTTA CTTCAAGGTT CACCATCCTA TTTATTACTA	6840
CTGTGCTTAC TTCTCCATTG GTGCTAAGGC TTTTGATATC AAGACCATGG GTGCGGGCTT	6900
GGAGGTCATC AAGCGCAGAA TGGAAGAAAT CTCTGAAAAA CGGAAGAACA ATGAAGCCTC	6960
TAATGTGGAA ATCGATCTCT ATACAACCTCT TGAGATTGTC AATGAGATGT GGAACGAGG	7020
TTTCAAGTTT GGTAAATTAG ATCTCTACTG TAGTCAGGCG ACAGAGTTCC TCATCGACGG	7080
GGATACCCCT ATCCCACCAT TTGTAGCAAT GGATGGTCTG GGAGAGAACG TTGCCAAGCA	7140
ACTGGTGC GGCGGTGAAG AGGGAGAATT CCTCTCTAAA ACAGAACTAC GCAAGCGTGG	7200
TGGACTCTCA TCAACCTTGG TTGAAAAGAT GGATGAGATG GGTATTCTTG GAAATATGCC	7260
AGAGGATAAC CAGTTGAGTT TGTTTGATGA GTTGTTTTAA AAAATTGCTT AATAATCTAT	7320
TAAAAGAGGC TAACGTATAT CCAATAGATT TACATTAGCT TTCTTTTMTG TTAAAATAGT	7380
CTATGGAAAG AGGGTGAGAG TATGTCAAAG ATGAGTATAA GCATCCGTCT GGATAGTGAG	7440
GTTAAGGAGC AGGCCCAACA GGTGTTTAGT AATCTGGGAA TGGATATGAC AACAGCTATT	7500
AATATTTTCC TTCGTCAGGC AATCAATAT CAGGGATTAC CTTTGTGATG TAGACTAGAC	7560
GAAAATCGGA AGTTGCTCCA AGCGTTAACG GATTTAGACC AAAATCGTAA TATGAGCCAG	7620
TCTTTTGAAT CAGTCTCAGA TTTGATGGAG GACTTACGTG CTTAAGATTC GTTATCATAA	7680
ACAGTTTAAA AAAGATTTTA AGTTGGCTAT GAAGCGTGGT TTGAAGGCAG AATTATTAGA	7740
AGAAGTTTGT AATTTTCTGG TTCAAGAAAA AGAACATCCT GCCAGAAATC GTGATCATTC	7800
ATTGACGGCA TCCAAGCATT TTCAAGGAGT TCGTGAATGC CATACCCAGC CAGATTGGCT	7860
TTTGGTTTAT AAAGTAGACA AGTCGGAATT GATTTTAAAT TTGCTGAGGA CAGGCAGTCA	7920
CAGTGATTTA TTTTAATCTA TTTTAAGGGG GTTCTCATGA AACTAAGAAT ATTTGCGGAA	7980
GATAAGCCGG CTAAGAAGGT ATTTGAATAT CAATTAGAAC TTGCTGATCG TACAATTCTT	8040
CTATCGACAG CACTCTTGTC AGGTGCTATT GCTTTAGCAG GAATCTTTTC TGCTTTGAAA	8100
GAAAAATAAA AATAGAAAAG AGAAAACAGA ATGGTTTAC CAAATTTTAA AGAAAATCTA	8160
GAAAAATATG CGAAATTGTT GGTGCGAAC GGAATTAACG TGCAACCTGG TCACACTTTG	8220
GCTCTCTCTA TTGATGTGGA GCAACGTGAA TTGGCACATC TAATCGTGAA AGAAGCTTAT	8280
GCCTTGGGTG CGCATGAGGT CATCGTTCAG TGGACAGATG ATGTGATTAA CCGTGAGAAA	8340
TTCTCCATG CCCCAGTGGA GCGTTTGGAC AATGTGCCAG AATACAAGAT TGCTGAGATG	8400
AACTATCTCT TGGAGAATAA GGCTAGCCGT CTTGGAGTTC GTTCATCTGA TCCAGGTGCC	8460

642

TTGAACGGAG TGGACGCTGA CAAGCTTTCA GCTTCTGCTA AAGCTATGGG ACTTGCCATG	8520
AAGCCTATGC GTATCGCAAC TCAATCTAAC AAGGTTAGCT GGACTGTAGC AGCTGCAGCA	8580
GGACTTGAGT GGGCTAAGAA AGTCTTCCCA AATGCTGCGA GCGACGAAGA AGCAGTTGAT	8640
TTCTTTGGG ACCAAATTTT CAAACTTGC CGTGTCTACG AAGCAGATCC TGTAAAGGCT	8700
TGGGAGGAAC ATGCAGCCAT TCTCAAGAGC AAGGCCGATA TGCTTAATAA GGAGCAATTT	8760
TCAGCCCTTC ACTACACAGC GCCAGGAACA GATTTAACAC TTGGTTTGCC AAAGAACCAC	8820
GTTTGGGAAT CAGCTGGTGC TGTCAATGCA CAGGGCGAAG AATCTTGCC AATATGCCA	8880
ACAGAAGAGG TCTTCACAGC GCCTGACTTC CGTCGTGCAG ATGGTTATGT CACTTCTACA	8940
AAACCGCTTA GCTACAACGG AAATATCATT GAAGGCATTA AGGTGACCTT TAAGGATGGA	9000
CAAATCGTAG ATATCACTGC TGAGAAGGGT GATCAGGTTA TGAAAGACCT TGTCTTTGAA	9060
AATGCGGGTG CGCGTGCCTT GGGTGAATGT GCCTTGGTAC CAGATCCAAG TCCAATTTCT	9120
CAGTCAGGCA TTACCTTCTT TAACACCCTT TTCGATGAAA ATGCGTCAAA CCACCTGGCT	9180
ATCGGTGCAG CCTATGCGAC TAGCGTTGTT GATGGAGCGG AGATGAGCGA AGAGGAGCTT	9240
GAAGCTGCAG GGCTTAACCG TTCAGATGTT CACGTAGACT TTATGATTGG TTCTAACCAA	9300
ATGGATATCG ATGGTATTCG TGAGGATGGA ACGCGGTAC CTCCTTTCCG TAATGGGAAT	9360
TGGGCAAATT AAGGAGATAA TATGTTAGGA AGTATGTTCTG TTGGTCTCCT AGTGGGATTT	9420
TTAGCAGGTG CTATGACCAA TCGTGGAGAG CGAATGGGAT GTTTTGGAAT AATGTTTCTC	9480
GGTTGGATCG GAGCCTTTCT AGGTCACCTG CTCCTTTGGA CTGGGGGCC AGTTTATCA	9540
GGAACAGCTA TTATCCCAGC GATTTTAGGA GCCATGATTG TTTTAGCTAT TTTTGGAGA	9600
CGAGGAA	9607

(2) INFORMATION FOR SEQ ID NO: 81:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14231 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

CTACAAGATA ATTCCAGCTA TAACATCCGC TATAATAGTA AGAGCGAGCT CTATGATAAG	60
GCTCATTAGT TTCACCTCCT CTCACGAACC CATAGGAACG TAATCGGTAA CCGATGACAA	120
AAATAGTATA CCACAATACA TTTAGATCAT CAAGGTCAC TAAATCTTGA AATATCAGAT	180
CTAAGAGAAA AATCTTTAAA ATCAGAAAAA CGCATAATAT CAGGTGTGCA AAAACTTGAT	240

643

ACTATGCGTT TTATGTGGG AAGGTTTACT CCATTTTCTC CTGAAATTGA GTTTTGTGCC	300
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TCAGCAGACA GAACGATACT CTTGAAAAAT CTCCTCACAT CATGTCAGCT TCGTCTTTCC	420
GTATATATGT GACTGACTTC ATCAGTTCTA TCTACAACCT CAAAACAGTG TTTGAGCTG	480
ACTTGATCAA TTTTCAAATC TGTAAGTTGA GCAAGCTGAG ACTAGCTTCC TATTGATTT	540
TCATTGAATA TCAGAAACCC ATTCTCCATC AAATAATTCG ACTGCGTCTA ATAATTTTGT	600
ATCTGGCAGC GTGTCTGAAA TAAAGGTTGT GTATTTGGAG AGGGGATTAA TTTTAAAAA	660
TCCAGTCTTG TAAAAATTAG AACTATCAAT CAGTAAGATG GTTTCATGGG CTTTGTCAAT	720
AATATTCTTT TTTGAAATAG CTTGGCTGAG AGAAGCTTCA TAAACATATT GGTATCAAT	780
ACCTCTTGCT GAACAAAATG CTAAATCGAT ATTAAAATGA TCTAATAAAG AATTTTCCTT	840
ATCATAGTTG ACCACGGAAC AGGATTGATG TTTGACCTCG CCAGATGTGA TAAAGATTTT	900
GGAGCTATCT TTAACAGTTT CAGATAGGGT TTGTGCAGTA TGTAAACCAT TTGTAAAAAT	960
AATCAAAATTA TCAAGTTCAG AAAGATAGGG ACAGAGTTCG TAGACAGTAG TACTAGAATC	1020
TAGATAGATA CACATACCAG ACCGAATAAA GTCTTTAGCG AGACTAGCGA TTAGTCTTTT	1080
TTGCCTAGTA CTTTCTCCTT CACGTATTTG ATGAGAAAGT TCAATTGTGT TCATAGAGGA	1140
CAGGGTCAGC TATCCGTGCT TTCTTTTGAT AAGACCTTGA TTTTCTAAGA AAATTAAATC	1200
ACGACGTAAG GTACTTGTGC TGGAGAAAGT GATTTCTGCC AGCTCTTTTA CGGCAATTCT	1260
TTTTTCTTTT TTGATAATTT CAATCAATTC AAGTACACGT TCATCTTTTA TCATAAGCTC	1320
CTCCTAATTT ATCATTTCOA CTATATTATA GCACAAATTG GAGGAATTG AATTATTTT	1380
ATGAATATTG GGTAAACATT TGAACATTAT TCAAGTAAGC GTTCACATAT TGAAAAATA	1440
AAACGTGGGG ATTATAATAA AGTTAATCma GGACGAAGAG AGAAGAAAAA TGGAGCGGT	1500
TTTAGCAATA GATTAGGTG CGACTTCTGG AAGAGCAATC GTTGGTTACC TTTCTGAAAA	1560
TAACTAGTA ATGGAAGAAA TAAATCGCTT TTCTAATCTA CCTATTAGAG TAAAAGGGCA	1620
TTTATCTTGG GATATTGACT TTCTACTAGC TAAAATTCTT GAAAGTATCC GCTTGGCTAA	1680
TACTAGTTAC AAGATTTTAT CTATCGGTAT TGACACATGG GGAGTTGATT TTGACTGAT	1740
TGATAATGAA GGTAAAGCTGT TATTACAACC TGTTCATTAT CGTGATGAAA GAACAAAGGG	1800
AGTGTTAAAG GAAATATCTG AAATGACTGA ATTAGAAAAA CTGTATTTCAG AGACAGGAAA	1860
TCAGATTATG GAGATAAATA CCTTGTTTCA ACTCTTTAAG GCACGTCAAG AATCTCCTGA	1920
CTCTTTCTAT AAGACCAATA AGATTCTTTT AATGCCAGAT TTGTTTAATT ATCTCTTGAC	1980

644

AGGTAAGTTT GCTACAGAAA AAAGCATTGC TTCACAACCT CAATTATTTG ATCCTAGGAG	2040
TCAAAATTGG AATCAGAATA TCTTAAACT ATTTGAATTG GATTCATCTT TACTTCCTGA	2100
AATTGTTTCA GAGGGAAATG TTCTTGGAAG GATAAAAGAG GAGTATGGTT TAGGCGATAT	2160
TCCTGTTGTG AATGTTTGTG GTCATGATAC AGCAAGCGCG ATTGTCTCAG TACCTAAGAC	2220
AGAAGGTAGT TTATTTATTT CATCAGGTAC TTGGTCTTTG GTTGAGTGG AACTTACTTC	2280
ACCGATTCTT ACTACCGAAT CCTTCAGTTA TGGATTTACA AATGAAGTCG GTAAAGATGG	2340
AGTGATTACA TTTCTGAAGA ATTGTACAGG GTTGTGGATC ATAGAGGAAC TAAGACGTTT	2400
ATTTGAACGA AGAGGGAAAG CCTATTCTTT TGATGATATT AGGACAATGG TGGAGAAAGA	2460
AAAAGAAAT CTTCCTCTGA TTGATACTGA ATCAACTGAA TTGCAACAG AATCTGATAT	2520
GCACAAGACT TTGACAGAAT ATCTAGCTTA TCATCATGAA ACTAGAGAGT GGACAGATGG	2580
ACAACTATTT AAGATTGTTT ATGAAAGCCT AGCTGAAACG TATAGGAAAG CGATAGAGTT	2640
ACTAGAAGAA CTAACCTATA AGGTTTATAA GAGGATATAT GTGATTGGAG GAGGTGCTAG	2700
AGCCAGTTAC TTTAACCAA TGATTGCTGA TAGAACTGGT AAAGAGGTTT TTACAGGTTT	2760
GACTGAGGCT ACAGCTGTGG GGAATATTGT TGTGCAGCTC ATAGCTATGG GACAATTAAA	2820
AGGGATGGAA GAGGCTCACC ATGTTATTGA GGAGTTTCTA CAATTAGAGA GTTATTACTC	2880
CCAAAGAAT TAAAAGATT GAGAGTTTGT AAATTGCGCT CCCTCCCCCT TCTTAGCTTT	2940
TGTGCAGGAA GGGGGGATAA TTGGTGAATT GAAAAATATT TAGTGTTTTG ATATGAGGAG	3000
GACAAGGATG TCAGATGTAA AACAGAATT AATTAAATAT GGTAAGAAGC TAGTAGAAC	3060
AGATTGACG AAAGGAACAG GTGGGAATCT CAGCGTTTTC GATCGTGAA AACAAATTGAT	3120
GGCAATTACC CCGTCGGGTA TTGATTTCTT TGAAATCAA GAATCCGATA TTGTAGTGAT	3180
GGATATTAAT GGAAATGTTG TAGAGGGAGA ACGCTTGCCA TCTAGCGAAT GGTATATGCA	3240
TTTGATTCAA TATCAAACTC GTGATGATAT CGATGCAATT ATCCATGCTC ATACAACTTA	3300
TGCAACAGTA TTAGCTTGTC TCAGAGAACC ACTTCCAGCG AGTCATTATA TGATTGCAGT	3360
GGCAGGGAAA GATGTTGCGG TAGCTGAGTA TGCAACATAT GGCACGAAAG AATTGGCTGT	3420
GAATGCAGCT AAAGCAATGG AAGGTCGTAG AGCAGTTTTA CTAGCGAATC ATGGAATTTT	3480
AGCAGGTGCA CAAATTTAT TGAAATGATT TAATATTGTT GAAGAAGTTG AATATTGTGC	3540
AAAAATTTAT TGTTTAGCTA AGAATTTTGG AGAGCCAGTA GTTCTTCCTG ATGAGGAGAT	3600
GGAATTGATG GCAGAAAAAT TTAAACATA CGGTCAGAGA AAATAGGGAG GATATTAATG	3660
TTAAACATA TACCGAAAA TATTTCTCCA GATTTATTGA AGACTTTAAT GGAATGGGA	3720
CATGGAGATG AAATAGTATT AGCTGACGCG AATTATCCTT CTGCCTCATG TGCAATAAG	3780

645

CTAATTCGTT GTGATGGTGT AAATATTCCA GAATTATTAG ATTCCATTCT GTATTTAATG	3840
CCATTAGATA GTTACGTCGA TAGTTCAATT CAGTTTATGA ACGTTGTTTC GGGTGATGAT	3900
ATTCCCTAAGA TATGGGTAC CTATAGACAG ATGATTGAAG GTCATGGTAC AGATCTTAAA	3960
ACGATTACTT ATCTTAGAAG AGAAGACTTT TATGAACGTA GTAAGAAAGC TTATGCTATT	4020
GTGCTACAG GAGAACTTC ACITTTATGCT AATATTATCC TTAAGAAAGG AGTAGTTGTT	4080
GAAAGAGAAA ATGTTCAATA GAGGAATTTT AGTTGCCAGT CATGGTAATT TTGCTAGCGG	4140
AGCTCTCATG ACCGCAGAAA TGTGTTGTTGG TGAGACAACA AATGATAGAG TTAGGACATT	4200
AGGTTTGATG CCTGGAGAGA ATATTGTAGA GTTTGAGCAT TATTTTAAAA ATCAAGTGGA	4260
TGAACTGTTA GACTCAAATC AAGAGGTTAT CGTTTGGACT GACTTGATTG GAGGAAGTCC	4320
TAATAATGTG GCTTTGTCAC GGTTTTAAAA TTTGGATTCA GTTGATATTG TAACAGGGTT	4380
TAATATCCCT CTCCTAGTGG AATTAATATC AAGTTATGAT TCAAAAATCA ATTTAGAAGA	4440
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GTGTGCTACTA CGTGGCTAAA AAAGTATGAT ATTGAGCAAG TTATCATTGT TAATGATCGC	4620
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GGAGGTGTAG CTCTAGGTGA AGAAGACAAA TATTATTTTA AGAAAATAGT TGATAAGGGA	4920
ACGAGAGTTG AAATTCAAAT GGTTCCTAAT GATAAAGTTA CAATGTTGGA AAAATTTTAA	4980
TAAAAATAAT TTAAGGAGGT ACAGTATATG CTATTCACAC AAGCATTACT GGTGACATTA	5040
GTGCGGATTA TTGCCACTAT TGAATAAT GGACCGTTAT TTATGATTCA CCGTCCGTTA	5100
GTTACAAGTG CAATGGTTGG CTTAGTATTA GGAGATTTCA CCCAAGGTGT TCTTATTGGT	5160
TCAGCTCTTG AATTAAGTTG GCTCGGTGTA ACAGGTATTG GAGGTTATAC TCCACCAGAT	5220
ACTATTTTCT GTGCGATTAT TGGTACTGCA TTTGGTATTT TATCTGGTCA AGGAGAACT	5280
GCTGGTATCG CTATAGCAGT TCCAATTGCA GTTGCTACCC AACAGTTGGA TGTTCTTGCA	5340
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TCAAAGATCG GTTTTATCA TTATTCAAGT TTGGTTTAA TCACGTTATT TAAAATTGTA	5460
CCAATTTTCC TAGCTATTAT GCTTGGAGGG GAATATGTGG CAGACTTGTT TGCTAAGGTT	5520

646

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GGTATGCTTT TAAATATGAT GCTCAAGAAA AATATGTGGG TATTCTTGTT GATTGGATTC	5640
ATTTGTCTCG TGTATGGAGG AATGTCAACC ATTGGGATCT CACTAGTTGG TATTGCGGTA	5700
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GAGGAGGATC TTGATCTATG ATGAATAATA AAGTAACTAA AGTTGAACTT AAAAAAGTTT	5820
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TTCTATATAC AATTCTTCCA GTATTGAAAA AACTATACCC AGACAAAGAT TCAGCTTCTC	5940
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TGTGTAAATT AATTAGAAAA GGAAGAATC CGGTTGTACT AATCTTTAGT GTTATGGCTA	6540
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TGGGATATCA CCTCCATTTT GGAAGAGAGG TAAAGAGTGA AATTATGGTA TAAGAAAGCT	6660
GCCGCAAAAT GGAATGAAGC CTTGCCGATT GGAACGGTC ATTTAGGTGG TATGATTAT	6720
GGTTCAGCTA CAAAAGATG TATTCAACTA AACGATGAGA CTATTTGGTA TAGAGGAAAG	6780
TCAGATAGAA ATAATCCAGA CTCACTATTG CATCTTAAAA AAATTCGGGA ATATCTTTTA	6840
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GATCAAAGCC ACTATGAATT ACTTGGGGAA CTTTACATTG AGCATATAGA TATTCAGTCT	6960
TGTGCTCTTT CATTGTATGA AAGAGAGCTA GATTTAGATA CAGCTATTTT TAATGTTGTG	7020
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AATATTTTAT GTTGCCGTAT AGTGTCATCA GTTCAAAACA CATTAAATTT AACATTAAT	7140
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ATGTCGGCCT CTGCTGGAGG TAGAAAAGGT GTTCAGTTTA AAGTAGTATG TCATTCTAAG	7260
GTACGGATG GTGAAGTAAG TGTATTGGGA GAGACAATAG TTATTCGGAA TGCTACAGAG	7320

647

GTATTTCTTT ATCTCAAATC AATGACGGAT TATTGGGGAA ATATAGATAT TTCTTCTCTT	7380
CAGGGAGAAT TTAGTAGTAT TGATTACTTT ACAGAAAAAG ATGAACATGT AAAAAAATAT	7440
CAGGAGCAAT TTAATAGAGT TGATTTTAAA CTAGACTATA GTAAAGGTTG TCTTAGCATT	7500
CCAACGAATC TACTTCTTGA AAACACTAAA AAGTATAGTA ACTACTTGAC TAACTTGTTA	7560
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CTTCAAGGAA TATGGTGTGA TGAATTAAAT CCAATTGGG GTTCTAAATA TACGATTAAT	7680
ATTAATACTC AAATGAATTA TTGGATGGTA GGTCCATGTG ATTTACCAGA AGTAGAATAT	7740
CCATTATTTG ATATGCTCGA AAGAATGAGA GAACCGGGAA GACTAACC GC TAAGAAAATG	7800
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CAATCTCATG CCATGGGGGC TGCAATTTGG GTATTAACTA TTCCATGGTT ATGTACTCAT	7920
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ATAAAGAAG CATTTCTTTT CTTTGAAGAT TATTTATTTG AGGTGGATGG CTACTTGATG	8040
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GCTTGCTAT CATCTACAAT TGATAATCAA ATTCTAAGAT ATTTTGTGA TTCATGCATT	8160
GGCATTGCAA AACAATTAGG AGACAATTCG GATTTTATTA GTCGTGTGAA GGAGTTAAAA	8220
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TATGAAGAAG TAGAGCCTGG GCATAGACAC ATTTACCTC TATTTGGGCT TTATCCTTAT	8340
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CATTTTTTG CGAGACTATA TCAAGGTGAA CTGCTTATA ACCAGATTAA TGGTTTGTTA	8580
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AATATTGAAT TGGTATTTAA TTCAGAAAA ATTATTGAGT TAAATTTTA GGTATAAGTC	8940
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648

ATTAATAATG AATCGCCATT GTTGCTTTCT CCGTTGTATG GCAATGATAA TGGTAACGGA	9120
TTATGGTGGG GGAACACATT GAAGGGAGCA TGGGAAGCTA TTCCTGAAGA TGTAAGCCA	9180
TATGCAGCGA TTGAACCTCA TCCTGCAAAA GTCTGTAAAC CAACAAGTTG TATTCCACGA	9240
GATACGAAAG AATTGAGAGA ATGGTATGTC AAGATGTTGG AGGAAGCTCA AAGCTAAAC	9300
ATTCCAGTTT TCTTGGTTAT TATGTCGGCT GGAGAGCGTA ATACAGTTCC TCCAGAGTGG	9360
TTAGATGAAC AATTCCAAAA GTATAGTGTG TTAAAAGGTG TTTTAAATAT TGAGAATTAT	9420
TGGATTTACA ATAACCAGTT AGCTCCGCAT AGTGCTAAAT ATTTGGAAGT TTGTGCCAAA	9480
TATGGAGCGC ATTTTATCTG GCATGATCAT GAAAAATGGT TCTGGGAAAC TATTATGAAT	9540
GATCCGACAT TCTTTGAAGC GAGTCAAAAA TATCATAAAA ATTTGGTGTG GGCAACTAAA	9600
AATACGCCAA TAAGAGATGA TGCGGGTACA GATTCTATCG TTAGTGGATT TTGGTTGAGT	9660
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TCAATGATTG CTATGGAAT GATGAATGTA TATACTGGG GAGGCACAGT TTATAATTTT	9840
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ATTCTTCCTG TAATACATGA GAAAATTGAT AAGGAAAAGA TTTCATCTAT ATTCCTTAAT	10140
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AATAATACAA AGTCGTTATC GTTAGATTG ACGCCACATA CTTACGCTGT TGTTAAAGAA	10380
AATCCAAATA ATTTACATAT TTTATTGAAT AATTACAGGA CAGATAAGAC AGCTATGTGG	10440
GCATTATCAG GAAATTTTGA TGCATCAAAA AGTTGGAAGA AAGAAGAATT AGAGTTAGCG	10500
AACTGGATAA GCAAAAATTA TTCCATCAAT CCTGTAGATA ATGACTTTAG GACAACAACA	10560
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CATTATACTT ATACAGAAAA TTGGGATGAG AATACCCATG TTTATACCAT TACGGTTAAT	10680
CATAATGAA TGGTAGAGAT GTCTATAAAT ACTGAGGGGA CAGGTCCAGT CTCTTTCCCA	10740
ACACCAGATA AATTTAATGA TGGTAATTTG AATATAGCAT ATGCAAAACC AACAACACAA	10800
AGTTCTGTAG ATTACAATGG AGACCCTAAT AGAGCTGTGG ATGGTAACAG AAATGGTAAT	10860

649

TTTAACTCTG GTTCGGTAAC ACACACTAGG GCAGATAATC CCTCTTGGTG GGAAGTCGAT	10920
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CAACGTCTAT CTAATTTTGA TGTGATTCTA TATGACAATA ATAGAAACGA AGTTGCTAAG	11040
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AGGTATATTA AAGTTAAATT ACTAACGAGT GGAGTGCCTT TGAGTTTAGC AGAAGTAGAG	11160
GTTTTTAGAG AATCAGATGG TAAGCAATCT GAAGAGGATA TAGATAAAAT AACAGAAGAT	11220
AAAGTAGTCT CTACAAATAA GGTAGCTACT CAAAGTTCAA CCAATTATGA GGGTGTAGCT	11280
GCTTTAGCAG TTGATGGTAA TAAAGATGGA GATTACGGAC ATCATTCCGT GACTCATACT	11340
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CATACCAAAG AAGATTCTCC TTCATGGTGG GAGATAGATT TAGCACAAAC CGAAGAATTA	11820
GAAAAGTTAA TTATTTATAA TAGAACAGAT GCTGAAATTC AGAGATTATC AAATTTTGAT	11880
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TGTGGCAGAT TTGATTTCAA GCACATTGAA ATATCCAGAT GGGGAACCTG TGGAATGCGT	12300
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AAAATCAAA GTTTGCGCAA CAATTACAGT TACACCATGC TGGTGTTATG GTAGTGAAAC	12420
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TGGGATTTAT GGAAGAGATG TTCAGGAAGC TAGTGACACA GATATTCCAG AAGATGTCAA	12600

650

AGAAAACTT TTACGCTATG CGCGTGCAGC TCTTGCAACT GGCTTGATGA GAGACACTGC	12660
TTACCTATCA ATGGGTAGTG TTTCGATGGG GATTGGTGGT TCTATTGTAA ATCCGGATTT	12720
CTTCCAAGAA TACTTAGGAA TGCGAAATGA ATCGGTAGAT ATGACGGAGT TCACGCGCCG	12780
TATGGACCGT GGTATTTACG ACCCTGAAGA GTTCGAACGT GCGCTCAAAT GGGTGAAAGA	12840
AAACGTA AAA GAAGGATTCG ACCATAACCG TGAAGACCTT GTTTTAAGCC GTGAAGAAAA	12900
AGATAGACAA TGGGAATTTG TTATTAAGAT GTTCATGATT GGACGTGACT TAATGGTTGG	12960
TAACCCAAGA CTTGCTGAAC TTGGTTTGA GGAAGAAGCG GTTGGTCACC ATGCTTTAGT	13020
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AACTTTCCTC AATACTCAGT TTGACTGGAA TGGTATTCGA AAACCATTG TATTTGCGAC	13140
AGAGAATGAT TCACTAAATG GTGTGTCTAT GCTCTTTAAT TATCTATTAA CAAATACTCC	13200
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ACATACTTTA GAGGTCGTG CTGCAGCTGG CTTCTTACAT CTAATCAACT CTGGTTCTTG	13320
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CTATGACCTC ATGAATAATT GGGGAGCTAA TCACGGAGCC ATAACATATG GACACATTGG	13740
AGCAGACTTG ATTACCTTGG CTTCTATGTT GAGAATTCCT GTCAATATGC ATAATGTACC	13800
TGAGGAAGAT ATCTTTAGAC CTAAAAATTG GTCCTTATTT GGAACAGAAG ATCTAGAATC	13860
AGCAGACTAT CGTGCATGTC AGTTGTTGGG GCCACTACAT AAATAAACT TGTATTATATA	13920
GGAGGTGAAC TTACGTCCTT CCTATCCTTT TAAAAAGATT TGTAAACAA TTCACAAATA	13980
ATTGAAAACG AATACAAAAA GTAATATAAT GATGTTAAAT AGATAGCGCG GAGGCGCAGG	14040
AGGAAAATTA TATGGCTATA TTTTATGTTT CGGCAGTCAA CCTTATTGGA AAAGGTGTTG	14100
TAAATGAAGT GGGTCCTTAT ATCAAGGAAC TTGGCTATAA AAAGGCACCT TTGGTGACAG	14160
ATAAGTACAT CGAAGGCAGT GATATTTTAC CTAAGACTTT AAAACCACTG GATACAGAAG	14220
GAATCGAATA T	14231

(2) INFORMATION FOR SEQ ID NO: 82:

(i) SEQUENCE CHARACTERISTICS:

651

(A) LENGTH: 16995 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

AGTTCTCTTA ACTTTTTTAG GATGGCATT CCGCTCTCA GGTACTCATT TTCTGCTgAA	60
GACGTTCTAA TTCTGCTCTC TCTTCAGGTC TCGTTTTTGG CTTACGTCCC ATTTTAGGTA	120
CTCTCCCTCT TGTMTTCTCA ACAATAGTAT ACCCGTTTTT CCTGTATTGT GCTAGCCAGT	180
TAAGAAGTAT CGTACGACTT GGGAGACCGT ATTCAAGAGA AACTCTATCT TTAGTCCAGC	240
CTTCATGTCA GACTTTATTA CTCATTCTT GTTTTAAATC AGGAGAATAG TAACGATTTT	300
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TAGAATTGCT TATCCCAAAT TTATTTGAAA GCTTCTCTAA GCTATATCCT TGTTTTCTAA	420
GTTCATAGAT CTGAACTTTA TCATCATAAG TTAGTTTCAT AATAAAAACA CCCCAAAAGT	480
TAGATTTTTT CTGTCTAACT TTTGGGGTGT AGTTCATGTA CACCTGATAT GATGCGTTTT	540
ATAATTTTTA AGCCTTTTTG CCCAGCCTCG TCAAAAAGTAA TGTTTTGACA CAAAATCTGT	600
GACAAAACCT TAGTTTTAAA GGTTTTTAAC TTTGTATATA CTAGTTTTAA GAAAAGGAGG	660
ATGATCTAAT GGAAGAAAAA GTATCATTGA AAGTCAGGCT TCAAAAATA GGGACATCGC	720
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TCTTTATCGC TGATGGCTAT CTGCCAAATG AACAGTTAGC TACTGTTGTT GGTCTATGT	840
TAACGTATTT ATTGCCAATC CTGATTGGTT ACACAGGTGG ATATATGATC CATGGCCAAC	900
GTGGTGCCGT TGTAGGAGCT ATTGCTACTG TTGGTGCAAT CACAGGTTCT AGTGTTCCTA	960
TGTTTATCGG AGCTATGGTA ATGGGCCAC TGGGAGGATG GACTATCAAG AAATTGATG	1020
AGAAGTTCCA GGAAAAAATT CGTCCCGGAT TTGAAATGTT AGTTAATAAC TTCTCAGCTG	1080
GTCTCGTTGG TTTTGCAATTA TTGCTTTTGG CTTTCTACGC AATCGGTCCA GTCGTATCGA	1140
CTCTTACTGG AGCTGTTGGG AATGGTGTG AGGCTATTGT CAATGCTCGC CTCCTTCCTA	1200
TGGCTAATAT TATCATCGAA CCGGCTAAAG TCCTTTTCCT CAATAATGCC CTCATCATG	1260
GCATTTTTAC TCCTCTGGGA GTAGAACAGG TAGCTCAAGC TGGTAAGTCA ATTCTCTTCC	1320
TATTGGAAGC TAATCCTGGA CCAGGTCTGG GAATTCTATT AGCTTATGCT GTATTGGTA	1380
AAGGTTCTGC TAAATCTTCT TCTTGGGGG CAATGGTTAT TCATTCTTTC GGAGGGATTC	1440
ATGAAATTTA CTTTCTTAT GTTATGATGA AGCCTACTCT ATTTTATAGCT GCTATGGCAG	1500

	652	
GAGGTATCTC TGGAACTTTT ACTTTTCAAC TCTTAGACGC TGGTCTTAAA TCTCCAGCTT	1560	
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CAATCTCAAA TTTGCTTGAT ACACCAAAAA CATTAATTGT TACTCAGGAA GAACTGACAC	1980	
CAAGAGCTAA AGACAAGAGT CCAAGTGCTA TTCATGTTTC TGTGATAAT TTCTTAGCGT	2040	
CCTCTCGTTA TGATGAAATT GTAGCTTCAT TAACAGGAGC TTCTCCAATA GCAGAAATTG	2100	
AAGGAGATAT ACCAACTTCA GCACCACTAG ATAGTCAGGA AAGTGACCTT AACCATATTG	2160	
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653

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CGTCCCTATC	CTTTTTCAGG	GTGAAAATTT	GCCAGAATCT	ATCCAGATTT	TAGTTGAAAG	3480
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654

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655

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656

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657

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658

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659

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GTATTGAGAC AGCCTTTGTG CAAAATGCCA GTATGGAGTT TGATACTGCA ACTCTTCGCC	14760
CGACCTATCG CTTTATGCGA GGTGTTCTTG GCCGAAGTAA TGCCTTTGAA ATTGCCAAAC	14820
GTCTAGGCCT ATCTGAAGTT ATCGTAGGAG ATGCCAGTCA GCAGATCGAT CAGGACAATG	14880
ACGTCAATCG TATCATTGAG CAATTAGAAG AGCAGACGCT GGAAAGCCGC AAACGTTTGG	14940
ACAATATCCG TGAGGTGGAG CAAGAAAATC TCAAGATGAA CCGTGGCTA AAAAACTCT	15000
ACAACGAGCT TAATCGTGAA AAGGAAACCG AGCTTAACAA GGCGCGTGAA CAGGCTGCTG	15060
AGATTGTGGA TATGGCCCTA AGTGAAAGTG ACCAGATTCT CAAAAATCTC CACAGTAAAT	15120
CCCAACTCAA GCCCCACGAA ATCATTGAAG CCAAGGCCAA GTTGAAAAA TTGGCTCCTG	15180
AAAAAGTGGA CTTGTCTAAA AATAAGGTCC TTCAAAGGC CAAGAAAAA CGAGCTCCAA	15240
AGGTGGGAGA TGATATCGTG GTTCTCAGTT ATGGTCAGCG TGGTACCTTG ACCAGTCAAC	15300
TCAAGGACGG TCGCTGGGAA GCCCAAGTTG GCTTGATTAA GATGACCTTG GAAGAGAAAG	15360
AGTTTGATCT TGTTCAAGCC CAGCAAGAAA AACCAGTCAA GAAGAAACAG GTCAATGTTG	15420
TGAACGAAC TTCTGGGCGA GGACCTCAAG CTAGACTGGA TCTTCGAGGC AAGCGCTATG	15480
AAGAAGCCAT GAATGAGCTA GATACCTTCA TCGACCAAGC CTTGCTTAAC AATATGGCTC	15540
AAGTTGATAT CATCCATGGT ATCGGAACAG GAGTCATCCG TGAAGGAGTT ACCAAATACT	15600
TGCAAGAAAA CAAACATGTC AAGAGTTTCG GCTATGCCCC ACAAATGCT GGAGGCAGTG	15660

660

GTGCGACTAT TGTCACTTTT AAAGGATAGC AGTATTCTGG ACTTTATAAA GTAAAAACTG	15720
TTGAACTAAT TTTTACTAAT AAACACATTG ACAAAGCCA ACATTTTTTG TAAAATTAGA	15780
ATCAATTAAA TACCAACACC GAATGAAGTT TAATAGAAGT GGGGAATCGT TTGATTTTCC	15840
ATGACTGTAA ATGGACGGAA CTCTGGAGAG ACCGTAAAGG CACCGAAGGG CAAGGCAGGC	15900
AACTGCTCAA ACTCTCAGGT AAAAGGACAG AGCTAGGATA GACCGCTTTT TAGCATTTAT	15960
CTAAGCATTG CAGAGTACAT GTATCTTGCA TGTGCTCTTT CTTTGGGGT TGAAACGATA	16020
GGAGAAGGAA ATGTTAGAAT TGCTTAAATC AATCGATGCT TTTGCTTGGG GACCGCCCT	16080
CTTGATTTTA TTGGTCGGAA CAGGGATTTA CCTAACTATT CGGCTAGGAC TCTTGAGGT	16140
TTTGCGTCTA CCCAAGGCCT TTCAGCTTAT TTTTATCCAG GATAAGGGAC ATGGTGATGT	16200
ATCCAGTTTT GCAGCTCTGT GTACAGCCTT GGCATCAACT GTTGGAACAG GAAATATCAT	16260
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GGCTTTCTTT GGAATGGCTA CCAAGTATGC GGAAGGACTC TTGGCCATCA AATACCGCAC	16380
CAAGGACGAC CATGGTGCAG TAGCGGGAGG TCCCATGCAT TATATCCTTC TAGGGATGGG	16440
AGAAAAGTGG CGACCACTTG CTGTTTGTGTT TGCAAGTAGCA GGAGTATTGG TTGCTCTCTT	16500
GGGAATCGGA ACCTTCACCC AAGTCAACTC GATTGCAGAA TCTATCCAAA ATACAACGAC	16560
GATTTGCGCA GCCATCACAG CTCTCGTCTT GTCTGTCTTT GTAGCGATTG CAGTCTTTGG	16620
TGGACTCAAG TCTATTCTTA AGGTTTCAAC TACTGTGTGTT CCTTTTATGG CCATCATTTA	16680
TATCTTAGGA ACTCTTACAG TTATTTTCTT TAATATCGGA AAAATCCCTG GCACAATCGC	16740
TTTAGTCTTT ACCTCAGCTT TTAGTCCCCT TGCTGCGGTA GGTGGATTG CTGGTGCTAG	16800
CGTTCGGATG GCTATTCAAA ATGGTGTGGC GCGTGGTGTG TTCTCAAACG AATCTGGTCT	16860
GGGTTCTGCT CCTATTGCAG CTGCAGCTGC CAAGACAAAT GAACCAGTAG AGCAAGGTTT	16920
GATTTCCATG ACAGGAACCT TTATTGATAC CCTCATCAT TGTACTCTAA CTGGTTTGAC	16980
CATCTTGGA ACTGG	16995

(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28473 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

CCGGGGCTTT TGTAGTATAA TAGAGATACG TTTTGAAAGT AGGAGGTATC TATGGACTTA 60

661

ACTAAGCGCT TTAATAAACA GTTAGATAAA ATTCAAGTTT CGTTGATTCTG TCAGTTTGAC	120
CAGGCTATTT CGGAGATTCC TGGGGTCTTG CGTTTGACCT TGGGGGAACC TGATTTTACA	180
ACGCCAGACC ATGTCAAGGA GGCGGGCAAG CGAGCGATTG ATCAGAACCA ATCCTACTAT	240
ACAGGGATGA GTGGTCTGCT GACTCTACGT CAGGCAGCCA GTGACTTTGT TAAGGAAAAG	300
TACCAACTGG ACTATGCTCC TGAAAATGAA ATCTTGGTTA CAATTGGGGC GACAGAGGCT	360
TTATCTGCGA CTTTGACGGC TATTTTGGAA GAGGGAGACA AGGTACTTTT GCCAGCTCCT	420
GCTTATCCAG GCTATGAACC GATTGTTAAC TTAGTTGGGG CAGAAATTGT TGAGATTGAT	480
ACGACTGAAA ATGTTTTTGT CTTGACTCCT GAGATGTTGG AGAAGGCCAT TTTGGAGCAG	540
GGTGATAAGC TCAAGGCGGT TATTCTCAAC TATCCAGCCA ATCCGACAGG AATTACCTAC	600
AGTCGAGAGC AGTTAGAGGC CTTGGCAGCT GTTTTACGCA AGTACGAAAT TTTTGTGTGTC	660
TGTGATGAGG TTTACTCAGA ATTGACCTAC ACAGGCGAAG CCATGTGTCT CTAGGAACGA	720
TGTTGAGAGA CCAGGCTATT ATTATCAATG GTTTGTCTAA ATCGCATGCC ATGACAGGTT	780
GGCGTTTGGG GCTGATTTTC GCTCCTGCGA CCTTCACAGC CCAGTTAATC AAGAGTCACC	840
AGTACTTGGT CACTGCCGA AATACCATGG CGCAACATGC TGCGGTAGAA GCCTTGACGG	900
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CGAAAAATG ACTGCTCTTG GTTTTGAGAT TATCAAACCA GACGGTGCCT TCTATATTTT	1020
TGCTAAAAAT CCAGCGGGCT ACAATCAAGA CTCCTTTGCT TTTCTGAAGG ATTTTGCTCA	1080
GAAGAAGGCC GTTGCTTTTA TCCCTGGTGC AGCCTTTGGA CGTTACGGGG AAGGCTACGT	1140
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GTACATGAGA GAAGCATGAT TCAGTCTATC ACGAGTCAAG GCTTGGTGCT TTACAATCGC	1260
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GCACGATTC TCTTGCGAAT CAATGATGAC GGACTCAGTT ACATCGAAGA CTATCATGAG	1440
GTCAAGACTT TTCCCAAGAT TAATAGTGAC CTCTTTGTCA TGGCCTATGC GACCTATGTG	1500
GCAGCTCTTG CAGATGCTAG TTTGCAGGAC AATCAGCAGG ATGCTCCCTT GTTTGCTTTT	1560
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TGCCATCGGG TTGGTCAGGC TTTTGACTTT TCTTTCAAAT ATGGAGCCTG CCTCTGTCCA	1740
GAGCATTATC ATGAGGATAA GAGACGTTGT CATCTCAATC CCAATATCCC CTATCTGCTC	1800

662

AATCAATTC AAGCTATTGA TTTGAGACT TTGGAGACCA TTTCGCTCAA GCCTGGAATC	1860
AAGCAAGAGC TACGCCAATT TATGGATCAA TTATATGAAG AGTACGTTGG GATTACCTA	1920
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AAATGAAAAA AATCGCAGTA GATGCCATGG GGGCGGATTA CGCACCTCAG GCCATTGTG	2040
AGGGTGTCAA TCAAGCCCTA TCTGACTTTT CAGATATCGA GGTTCAACTT TACGGAGATG	2100
AAGCTAAAAT CAAGCAATAT CTGACAGCGA CAGAGCGCGT CAGCATTATC CATA CGGATG	2160
AGAAGATTGA TTCGGATGAT GAACCTACGA GAGCTATTG GAATAAGAAA AATGCCAGTA	2220
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ATACAGGTGC CTTGTTGGCA GCAGGATTCT TCATCGTGGG TCGTATCAAG AATATCGACC	2340
GTCCTGGA CTGCTTACC TTGCCTACCG TTGATGGAAG AGGTTTGTGAC ATGCTAGACC	2400
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TCTATGCTAA AAATGTCCGT GGCATTGCGC AACCACGCGT TGGTTTGCTC AACAAACGGAA	2520
CAGAGAGTAG CAAGGGCGAC CCGCTTCGTA AGGAACTTA TGAATTACTG GCGGCTGATG	2580
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TCTGGAAGAT GAATTTAGTA TCGAAATCAG CGATGAAGAA ATTGACCAAC TCCAAAACG	3180
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CAAGCCGCTA ACAGTTGAAG ATAAAGCCTG TAATCATGCG CTATCTAAGG AGATAAGCAA	3420
GGTTGAGAA ATCTTTGCCA AAGTAAAAAC GTTTAAAAATG TTTTCAACAA CCTATCGAAA	3480
TCATCGTAAA CGCTTCGGAT TACGAATGAA TTTGATTGCT GGTATTATCA ATCATGAACT	3540
AGGATTCTAG TTTTGCAGGA AGTCTAATAG TAAAAAGTG ATTAGAAAAC ATCTTTTITA	3600

663

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GAAGAAAACA GAAAAATCTG TTAAAAATA ATCAAACTA TAAATGATGA ATCTGAATCA	4140
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CCTATGTGCC AGATCAGATG CGTTCGACAC TAGGGATTAT TTCTATTGGG CTAGTCATCG	5340

664

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CCTTCTTTGC GACACGCAGG ACAGGGGAGA TCGTGTCTCG TTTTACAGAT GCTAACAGTA	5520
TCATCGATGC GCTGGCTTCG ACCATCCTTT CGATTTTCCT AGATGTGTCA ACGGTTGTCA	5580
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ATCATTTGGA AGAAAATAAG CTGGTTAAGA AGGGGGATCT TTTGGTTCAA TACCAAGAAG	7140

665

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GGGCTAGTAC ATCGCAACAA AATGAGACCA TCGCGTCCCA GAATGCAGCA GCTAGCCAAA	7380
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666

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ACCCACAACC	ATCCAACAGA	AATTGAGCCA	TTTGGTGGAG	CGGCTACCTG	TATTGGTGGA	10320
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ATCATCCTTC	TCGGAGGCAA	AACAGGTCGT	GATGGTGTCTG	GTGGTGCGAC	GGGCTCTTCT	10680

667

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CTTGAAATCG	ACCTCAACAA	GGTGCCTCTT	AAATACCAGG	GCTTGAATGG	TACAGAAATT	10920
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668

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669

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670

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671

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672

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673

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674

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AATGGTGT TTCCAGTATT CTCAATAGCT TTCTTGAGGA AACCACCACC ATCTTCTGGT	24720
TTTTGACCAA GAATGTAGTA CCAGTCACCG TTGGTATTCA AGAATTTATA GCCTTTGCTT	24780
GCTAGGTATT GAGGTGATGC GAGGTTATAT CCCACCAGC CTTTAGACCA GTAAGAAATC	24840

675

AAGACATCTT	TGTCAAACG	AACATCGTCC	TTGTCTTCAT	AGTAGAAGCC	ATCGTTGAAG	24900
GCCATTGGTT	GAAGCCCTCT	TTCTTTGGCC	ATAGCTGCCA	GGGTGTTGGC	ATATTCGGCA	24960
AATTTGCCAT	AGAGTTGATA	CCACTTGAGG	TAGTACCAGC	CTTGGGCACT	AGTCGCATCG	25020
TTGGCGTATT	CGTCAGTACC	AAAGTTGAAA	ATCTTTGTTT	TACCTGCAAA	GAAGTCCATG	25080
TATTTACCGA	TGAGGGCTTT	TACAAAGTTC	ATCGCTTCTT	CGTTTTTCAA	GTCCATAGTT	25140
GTTTTTGAAA	CTTTATCAAA	GTGGGCTTGA	GGATTTTTAA	TACCTAATTT	TTCCATGGCA	25200
ACCAGCATAG	CATCCATGTG	ACCTGGACTG	TTAATAGCTG	GGATGAGACC	GATGTCCTTA	25260
GATTTAGCGT	ATTC AATTAG	CTCTGTTACT	TCTGCCTGTG	TTAGTGCACT	ACCGTTTGGA	25320
TCGTCGTAGT	AAGCTTTAGT	TCCTTCGATA	ATAGCTTTTT	TAACGTCATC	ACTAGCATAG	25380
GTTTTTCCGT	TGGCAGTAAT	GGTCATATCA	TCGAGTAGAA	AGCGAAGTCC	GTCATTTCTT	25440
AGAAGGAGAT	GGACATCAGA	ATATCCGAGC	TCACTGGCCT	TGTCTACGAT	GCGTTTGAGC	25500
TGGTTACAGT	TAAAGTATTT	GCGTCCAGCA	TCGATTGAGA	TTACCTTGTT	TTTGGCAAGT	25560
TTTTC AACCT	CACGTTTAGC	TTCTTCTTCT	TTTTGAGCTT	CAGGCGTGAG	GGTCAAGTTG	25620
TTGACAGTTT	CTTGAAGTTT	AGCAATGGCT	TGATCAATCG	TATCTTGTTG	GGCACGGCTA	25680
AGGTTGCTAT	CGAGAGAGCG	AATAGCTTTT	TCAGCTTCTT	TTACGGCCGT	GACGCTTTCT	25740
GCAGTATAAC	GGTTCAGGTC	TTTTGGTACC	TCGTTAAGTG	CTTGCTCTGC	AGATTCATAA	25800
TCAGCTGCCA	AGTATTCAGC	GTTGGCATTT	GCAAAATGAC	GCATGAGTTT	GAAGAGGCGT	25860
GATGGTGAAT	AACGTGCAGA	TGGAGTGTCA	GCCCAAGCAG	CTACCATACC	ACCGATGATT	25920
GGGATATCAG	CTCCTTCTGT	TTTTGGTACA	GAAGTGATTG	GTGTGTTTTT	AATACCATTG	25980
AGCCCTTGAT	CGAGATTGTA	CCAGCCTTGG	CCATCAGCGT	TTCTGTTCAAG	AACGTAGTAC	26040
CAAGCATCAT	TGGTATTAAG	GATTTGGTGA	CCTTTTTTCAG	CTAGTAGTTT	AGAAGAAGCG	26100
ACATCGTAGC	CTCCCCAACC	ACCAGTCCAC	ATAGAAACGA	TGATGTCTTT	GTCAAAACTA	26160
CCAAAGCTTG	TGTCGCTATT	GATAGTAGATA	CCGTCGTTAA	AAGCCATTGG	TTTGAGACCG	26220
TGCGATTTTA	CAATACGAGC	GAGGTCAATTG	GCGTAGGCAA	TAAATTTTTC	ATAGCCTTTT	26280
ACAGGGTAGC	CTTCGTTTGG	ATAGTATTTA	TCAGCTTGAA	GCACACTCCA	ACCTTTAGCA	26340
TCTGTGCGAT	CATTGGCATA	TTTATCAAGT	CCGATGTTGA	AGATTTCACT	CTTTTTCGCG	26400
AAATAAGCAG	CATACTTGTC	GATAAGGGCT	TTTGTAAGAG	CGACAGCTTG	TTCGTTGTCA	26460
AGATCGACAG	TACGGGCTGA	TTTCTTCCCA	AAATAGCTAA	AGTTAGGGTT	TTGATTCCC	26520
AATCTTTTCA	TGGCATTGAG	AATCGCATCC	ATGTGTCCAG	GACTATTTAC	TGTCGGAATG	26580

676

AGACCGATAC CTTTATCTTT GGCATAGTTA ATCAGATCTG TCATTTGACT TTCTGTTAAG	26640
TGATTGCCGT TTGGATCGTT GTAATAATCA TTTGTACCTT TTTCAATGGC GCGTTTGACA	26700
TCGTCACTGG CATAGGTCTT GCCGTTAGCT GTGATGCTCA TATCGTCCAA CATGAAACGG	26760
AGTCCATCAT TTCCGACTAA TAGGTGTAAA TCAGTGTAGC CATAATGTTT CGCTTTATCG	26820
ATGATTTCCT TGAGCTGTTT TGGTGAGAAA TATTTACGTC CAGCATCAAT AGAAACAATT	26880
TTCTTTTTCG CTAGTTTTTC ATTTACAGTT GCAGCACGTT CCTTTCCTGC CTCTGTTGCC	26940
GGTTTGTCTCAG CCTCTGCTTT CGCTTCATCT TTTTGTAGCTG GTTTATCCTT GTCAGTCTTG	27000
TCTGTATTTG ACTCTTTAGA ATCAACCTCT TTCGCTTCTT CCTTTTTAGG GCTAGCTTCT	27060
CTGCCTTTT TATTAGCAGT TTCTTTTTCA GCAGAAGTTG GAGTTACCAC TTCTGCTTTA	27120
TCACTAGGAG TTGAACTAAC TTCCTCTTGT GGTTTTCTTT CTGTTTTTGG AAGACTAGCT	27180
ACCTTATCAG TAGCTGGAGT TTCTGTTTCT ACAGTTTTTG GAGCTTCTGG TTGAAGCACT	27240
GCTTTAGGTG TTTCTCAGT CCGATTTTCG GATGATTGAG GGAATCAGA AACCGTATGG	27300
ATGGTCGGTT GGTTFCTGT AGTAGTAGGA GTAACCTCAT CGGCTGCAAC AGTCTGTGCT	27360
TGGAAGGCAA ATCCAATTAG AACAGAAGCT GCTCCTACAG CGTATTTACG AATAGAAAAA	27420
CGCTGTTGTT TTTTATGTTT CATTGCAAAA CCTCCTGATT GCATTGTTAT ATTGATAGCG	27480
ATTATATAAA TCAACGCCCT TATTTTATTT CTTATATTAA TTTCTTATAT TAACGAGAGT	27540
CAAGAGGAGA TGACAAAAAA CTATAATAAG TATAAAAAAA TATAAAATTT AAACCTAAGA	27600
TTTCAGATTG GTCGGAAAAA ATACGTATAT ATATCTAGTA TAATTTTTGG TTCTATTTCT	27660
ATAAAATATT CCACAAATTA TAGAATTTTC CAAAAATAGG TAAGCGCTAC CTTTTTGGTG	27720
TAGTATAATA AGCATAGAAA AAGCCCAAGC GATTAGCTCA GGTTCCTTC TTAGTGATCA	27780
CGGTACATG AGATAAATTT AATCTGTAG TAATCAGATC GTTTGTAAGT TTCACTGTAT	27840
TCTAAACTT GGCCAGTTGA TTCGAGTTG GTGATTTTAG TTTGTAGGAC AGTAGGGAAT	27900
TGTTTCATCGA CTCCGAGGAC TGAAGCTGCA TGTTCGGAG TTGGAAGAC TATTTTCGTTG	27960
ATTTCTTCAA AGTGTTCATC ATTCATGTGA ATGTGGTAGT CTAACCTGAA ACGATTATAG	28020
ATAGAACTAT AGTATTCAAG GTTTGGATAA TTTGCGTGA TATATTGTTT TGGGATGTAG	28080
GATGTATGGT AGATATAAAC GACACCGTTT GATTCGCGGA TACGTTCAAT CTTGTAGTAG	28140
AATTGATCGC CGCGTAGACC CAATTTTCC AAGTAAACAA GCTTGTTTCC GCGTTCAATT	28200
GAAAGAACAG TTACCTTATC ATCTTTAGCA TTGAAGAGTT CAATATCTGA AAACCTTACA	28260
AGCTTGTTGTT TGCGTGACG TGAAACGAAG GTTCCTTTTC CTTGTTGGCG GACAATATAG	28320
CCATCTTTGG CAAGGTCGTT TAAGGCGCGA ACAACTGTGA TAGAGCTGAC ATCGTACATT	28380

677

GAAATGAGTT CTGCTTCAGT GTAAAATTTA TCTCCACTGC TAAACTGCCC AGAGATGATT 28440
TTATTTTTTA ATTCGTCCTT TATGTATTGA TGG 28473

(2) INFORMATION FOR SEQ ID NO: 84:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6749 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

CCTGATGGGT GGTATGCGAG GATACAGTTC TGAAAATCGC CGTTACTTAA TTAATGGACG 60
CGAAGTCACA CCTGAGGAAT TTGCTCACTA TCGTGCGACT GGTCATTAC CAGGAAATGC 120
AGAAACTGAT GTGCAAATGC CACAACAGGC ATCAGGTATG AAACAAGGCG GTGTCCTTGC 180
AAAAC TAGGT CGAAACTTAA CAGCAGAAGC GCGTGAGGGC AAGTTGGATC CTGTTATCGG 240
ACGAAACAAG GAAATTCAAG AAACATCTGA AATCCTCTCA CGCCGCACCA AGAACAATCC 300
TGTTTTGGTC GGAGATGCAG GTGTTGGTAA GACAGCAGTT GTCGAAGGTC TAGCGCAAGC 360
CATTGTGAAC GGAGATGTTT CTGCTGCTAT CAAGAACAAG GAAATTATTT CTATTGATAT 420
CTCAGGTCTT GAGGCTGGTA CTCAATACCG TGGTAGCTTT GAAGAAAATG TCCAAAACCT 480
AGTCAATGAA GTGAAGAAG CAGGGAATAT TATCCTCTTC TTTGATGAAA TTCACCAAAT 540
TCTTGCTGCT GGTAGCACTG GTGGAGACAG TGGTTCTAAA GGAAGTGCAG ATATTCTCAA 600
GCCAGCTCTC TCTCGTGGAG AATTGACAGT GATTGGGGCA ACAACTCAAG ACGAATACCG 660
TAACACCATC TTGAAGAATG CTGCTCTTGC TCGTCGTTTC AACGAAGTGA AGGTCAATGC 720
TCCTTCGGCA GAGAATACTT TTAATAATTCT TCAAGGAATT CGTGACCTCT ATCAACAACA 780
CCACAATGTC ATCTTGCCAG ACGAAGTCTT GAAAGCAGCG GTGGATTATT CTGTTCAATA 840
CATTCTCAA CGTAGCTTGC CAGATAAGGC TATTGACCTT GTCGATGTAA CGGCTGCTCA 900
CTTGCGGGCT CAACATCCAG TAACAGATGT GCATGCTGTT GAACGAGAAA TCGAAACGGA 960
AAAAGACAAG CAAGAAAAAG CAGTTGAAGC AGAAGATTTT GAAGCAGCTC TAAACTATAA 1020
AACACGCATT GCAGAATTGG AAAGGAAAAT CGAAAACCAC ACAGAAGATA TGAAAGTGAC 1080
TGCAAGTGTC AACGATGTGG CTGAATCTGT GGAACGAATG ACAGGTATCC CAGTATCGCA 1140
AATGGAAGCT TCAGATATCG AACGTTTGAA AGATATGGCT CATCGCTTGC AAGACAAGGT 1200
GATTGGTCAA GATAAGGCCG TAGAAGTTGT AGCTCGTGCT ATCCGTCGTA ACCGTGCTGG 1260

678

TTTGTGATGAA GGAAATCGCC CAATCGGCAA CTTCTCTCTT GTAGGGTCTA CTGGGGTTGG	1320
TAAGACGGAG CTTGCTAAGC AATTGGCACT CGATATGTTT GGAACCCAGG ATGCGATTAT	1380
CCGTTTAGAT ATGTCTGAAT ACAGTGACCG CACAGCTGTT TCTAAGCTAA TTGGTACAAC	1440
AGCAGGCTAT GTGGGTATG ATGACAATAG CAATACCTTA ACAGAACGTG TTCGTGCGAA	1500
TCCATACTCT ATCATTCTCT TGGATGAAAT TGAAAAGGCT GACCCCTCAAG TTATTACCCT	1560
TCTCTCCAA GTTCTAGATG ATGGTCGTTT GACAGATGGT CAAGGAAATA CAGTAACTT	1620
CAAGAACACT GTCATTATTG CGACCTCAA TGCTGGATTT GGCTATGAAG CCAACTTGAC	1680
AGAAGATGCG GATAAACCG AATTGATGGA CCGTTTGAAA CCCTTCTTCC GTCCAGAATT	1740
CCTCAACCGC TTTAATGCAG TCATCGAGTT CTCACACTTG ACTAAGGAAG ACCTTTCTAA	1800
GATTGTAGAT TTGATGTTGG CTGAAGTTAA CCAAACCTTG GCTAAGAAAG ACATTGACTT	1860
GGTAGTCAGT CAAGCGGCTA AAGATTATAT CACAGAAGAA GGTACGACG AAGTCATGGG	1920
GGTTCGTCCT CTCGTCGCG TGGTTGAACA AGAAATTCGT GATAAGGTGA CAGACTTCCA	1980
CTTGGATCAT TTAGATGCTA AACATCTGGA AGCAGATATG GAAGATGGCG TTTTGGTTAT	2040
TCGTGAGAAA GTCTAAGACA GAATTTTGAG GATAAAAAAG AAGGAGCCAG CTGAAAAAAA	2100
CTGGTTCCTT TTTAGGTACG ACAGGCATGT CGTATAGTAG AAGTGATTA TTCTAGTTTC	2160
AATATACTAT AGTAGCTCAG AAGTCGGTAC TTAAACGTGC TATATCAAAA CCAGTCCTGG	2220
AAAAACGTGG ACTGGTTTCG TGTTTGGATT ATTACCTTGA ACGACATGCG TTTAAAGTTA	2280
GTTGAACCGC CGTATGCCA ATGGTACGTA CCGTGGTGTG AGAGGGGCTA GAGATTATCC	2340
CCTACTCGAT TTTAAATCAC ATGACGTTCA AAGGCATCAT CTGAAATCCC TTGTTCCAAG	2400
ATGAGTTTTC CCCATTCTTT AGCAGAGAAG AGGCTGTGGT CTTGTAGTT TCCGCAAGAT	2460
TCGATGGTTG TCCCTGGGAC ATCTTCCCAA GTAGTAGTTT CAGCGATTTT CTGAGCGAA	2520
TCCTTGATAA CAGCTGCGAT TTTAGCACTG GTGTGACGTC CCCACATAAT CATGTGGAAG	2580
CCTGTGCGGC AACCAAATGG TGAACAGTCA ATCATGCCGT CAATGCCGGT ACGGATGAGT	2640
TTGGCTAAGA GGTGCTCGAT AGTGTGAAG CCGGCAGTAG GGATAGAGTC TTCGTTTGGT	2700
TGCACCAAGC GAATATCATA ATTGGAGATG ATGTCTCTT TTGGTCCTGT TTCTTCCCA	2760
ATCAAGCGAA CATAGGGTGC TTTGACAATG GTGTGGTCAA GTTCAAACT TTCGACAATA	2820
ACTTCTTTTG ACATGGTAAA TCCTTTCAGT TTTCTTCTCT CATTATATCA TAAAGGTTC	2880
TCCTGAGACA GAGAGAAAAC CTCTCCGAGG CTGGAGAGGT TGAAATCTTT ACTTACGATA	2940
TAAGCGGTCG TATTGGTAGT ATGGGTCAAA GGTACGTTG ATACCCAGTT TACGAAGGAC	3000
ATTCTTGTCT TCATCAGTCA AGATGATGGT TGAGTGGGCT TCGCTTCCTT TGAGGTTGCC	3060

679

GAGTTCTTCC ATAGCGCGG CAGCATCAGG ATTTTCTGTA GCTGTGATAG CAAGTGCAAT	3120
CAGGATTTC TTTGAATGAA GGCCTGGATT GCGGCTACCG AGATGATCGA TTTTAAGACC	3180
TTGGATTGGC TTAACAACCT CAGGCTCGAT TAGTTTACT TCTTTAGCGA TGTCAGCTGA	3240
TTTTTTGATG GCGTTGATCA AGGCAGCGGC TGTAGGACCA AAGAGTTCTG AGTTCTTACC	3300
AGTGATGATT TCCCCATTG GCAATTCAAA GGCTAGGGCT GGTCCACCAG TTTCTTCTGC	3360
TTTTTGGCGC GCAACGACAG CAACCTTACG GTCTGCAGGT GTGATACCGA GGTCGTTTCAT	3420
GAGCAACTCA ATTTTCTTGA CCGCAGCTTC GCCAACTTTT TCAGCTTTGA AGTCAAGAAC	3480
TGTTTGATAG TAACGGCGGA TGATTTCTTG TTTAGAAGCT TCGACAGCGG CCTCGTCATC	3540
TGTAATAGCG AAACCAACCA TGTGACACC CATATCTGTC GGTGAAGCGT ATGGTGATT	3600
TCCGAGAATA CGTTCCAACA TGCCTTGAG CACTGGGAAG ATTTGATAT CACGGTTGTA	3660
GTTGACAGTG GTTCTCCAT AGGTTTGAAG ATGGAAGGGG TCAATCATGT TGACATCATC	3720
AAGGTCAGCT GTGGCAGCTT CATAAGCCAA GTTAACTGGA TGATGAAGGG GAAGATTCCA	3780
AACAGGGAAG GTTCAAAT TAGCGTAGCC AGATTGATG CCATTGATT GTTCGTGGTA	3840
CATATTGGAC ATACACGTTG CCAATTTTCC AGAACCAGGT CCAGGAGCGG TTACGACAAT	3900
CAAGTTGCGA CTGGTTTGA TGTAGTCGTT TTTGCCCATG CCTTCTGGGG AAATGATGTG	3960
ATCCATATCC GTCGGATATC CTTGATTGG ATAATGAAGA TAAGAATCAA TTCCGTTTTT	4020
CTCAAGTTGA TTGCGGAAG CATCTGCAGC GGGTTGGCCA GCGTATTGT TAATGACAAC	4080
GGAACCAACA AAAATCCCTA ATTCATTGAA TTTATCAATC AAACGAAGAA CTTCTTGGTC	4140
ATAAGAAATG CCTAAGTCGC CACGTGCTTT GGAATGTTC ATGTTGCTAG CATTAATGGC	4200
AATCACAACC TCAACCTGCT CTTTCAATC TTGCAAGAGC TTGATTTGT TGTCAGGTT	4260
ATAACCAGGA AGGACACGAG CAGCGTGGA ATCTTCTAAC ATTTTACCGC CAAACTCTAA	4320
GTAGAGCTTG CCGTCAAAT GGTAAATGCG CTCCAAAATA TGGTCGCGTT GTAAATTCAA	4380
ATATTGTTCA GAACTAAAAG CTGTGTTTTT CATTTTTTTA CCTCTGGA CTATTATAAT	4440
AAAAAATTGG AAGTTAGGAA ACTACGGAGC TAAAAAAGAA ATTAAGGAA TTAAGCAAAC	4500
GCTTGACAA AATTTTAAAA AGTGCTATCA TAGACTATAG ATTATGAAAA TAATGAGGTA	4560
AACAGATGCA AGAAAAATG TGGCACAATG CCGTAGTCTA TCAAGTCTAT CCAAAGAGTT	4620
TTATGGATAG TAATGGAGAT GGAGTTGGT ATTTGCCAGG TATTACCACT AAGTTGGACT	4680
ATCTAGCTAA GCTAGGAATC ACAGCAATTT GGCTTTCTCC CGTTTATGAC AGCCCTATGG	4740
ATGATAATGG CTATGATATT GCTGATTATC AAGCGATTGC GGCTATTTT GGAACCATGG	4800

680

AGGACATGGA TCAGCTGATT GCAGAAGCTA AGAAGCGTGA CATTGCTATC ATCATGGACT	4860
TGGTGGTCAA TCATACCTCA GATGAACATG CTTGGTTTGT CGAAGCCTGT GAAAATACTG	4920
ACAGCCCTGA GCGAGACTAC TATATCTGGC GCGATGAACC CAATGACCTA GATTCTATCT	4980
TTAGTGGGTC TGCTTGGGAA TACGATGAAA AGTCAGGTCA ATACTATCTC CACTTTTCA	5040
GCAAGAAACA GCCGGATCTC AACTGGGAAA ATGAAAAACT TCGCCAGAAA ATTTATGAGA	5100
TGATGAACTT CTGGATTGAT AAAGGTATTG GTGGTTTCCG TATGGATGTT ATTGACATGA	5160
TTGGCAAAAT TCCTGACGAG AAGGTAGTCA ATAATGGTCC TATGCTCCAT CCCTATCTCA	5220
AGGAAATGAA TCAGCGCACC TTTGGAGATA AGGATCTCTT GACAGTAGGG GAGACTTGGG	5280
GAGCAACTCC AGAGATTGCC AAGTTCTACT CTGATCCAAA GGGGCAAGAA TTGTCTATGG	5340
TCTTCCAGTT TGAACATATC GGTCTTCAGT ATCAGGAAGG TCAGCCTAAA TGGCACTATC	5400
AAAAAGAGCT GAATATCGCT AAGTTAAAAG AAATCTTCAA CAAATGGCAG ACAGAGTTAG	5460
GAGTTGAGGA CGGCTGGAAT TCCCTCTTCT GGAACAACCA TGACCTCCCT CGTATGTCT	5520
CAATCTGGGG AAATGACCAA GAATACCGCG AAAAATCTGC CAAAGCCTTT GCAATCTTAC	5580
TTTATCTCAT GAGAGGAACT CCTTATATCT ACCAAGGTGA GGAGATTGGG ATGACCAACT	5640
ATCCGTTTGA AACACTGGAT CAAGTAGAAG ATATTGAATC TCTCAACTAT GCGCGTGAGG	5700
CTCTTGAAAA AGGTGTTCCG ATTGAAGAAA TCATGGACAG TATCCGTGTT ATTGGACGTG	5760
ACAATGCCCG TACCCCTATG CAATGGGACG AGAGCAAAAA CGCTGGTTTC TCAACAGGTC	5820
AACCTTGGTT GCGGTTAAT CCAAATTACG AGATGATCAA TGTCCAAGAA GCGCTGGCAA	5880
ATCCAGATTC TATTTTCTAT ACCTATCAGA AACTGGTCCA AATTCGCAAG GAGAATAGCT	5940
GGCTAGTTG AGCTGACTTT GAATTGCTTG ATACGGCTGA TAAGGTCTTT GCTTATATAC	6000
GTAAGGATGG CGACGTCGC TTCCTAGTTG TGGCTAACTT GTCCAATGAA GAGCAAGACT	6060
TGACAGTAGA AGGAAAAGTC AAATCTGTCT TGATTGAAAA CACTGCGGCT AAAGAAGTAC	6120
TTGAAAAACA GGTCTTGGCT CCATGGGATG CTTTCTGTGT GGAATTACTA TAAATATTTT	6180
TTGCAGAAAA ATTTAAATTT GAAATCGTAT AAAACAAGG GAGGACTGTA TAAAGACAG	6240
AAATCCTTTG TTTTTTATAA CCAAAGTTTA TAAACTTTCA TTCTTGAAAT TCAATTAACT	6300
TTACAAATTC CCACTATTAA GGAGAAAGAA GATGAACATA AAGAAGCGTG TCCTTAGTGC	6360
AGGCCTGACT TTTGCATCTG CTTTGCTTTT ACCCAAATCA TTCATACCTC TCTCAACTAG	6420
ATGTAACCTA CAAAACCCCT GACCTCATGA GCCACTTTCT TCCTCCTCAT GAGGTCAGTT	6480
TTACTTTCTG CTGTTCCAGT ATCGTTTTTC CTCGCTAGAT TTCCTCAAAA GGGCAGACTC	6540
CTCCCTTGGT GCGTCACAG ATTTTTCAT CTCGACTGTT CTTTAATGCA TCATTAACGA	6600

681

CGCTTTTCTT CTAGGTGGTT CATAAGGAAC AGGAAGATTC AGGTTGACTT TTCTAATCCT 6660
AGAATAAAGT GCTGAAAACA ATTCGGAATA GGCATAGAGA CTAGACAATT TGAGGAGCTG 6720
CTTGCGTCCT GTTCGAACAC ATTTTCCGG 6749

(2) INFORMATION FOR SEQ ID NO: 85:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1842 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

TCTACCCATG GACTTTGAGG CATTCAATTGT TCCATCTTCT AGTGGCGAAT CTTTGTATAC 60
AAACGATTCA ATTCACCTGG ATAGTGAAAC TCTCCCGCAA ACATTTTCTT GGTAACTCA 120
ATCCAGCTGA TATTTCTTTC AGCCAAAATA ATGGACAAGT TCTCCCAAAA TCGTTCAGCC 180
ATATTGCTTC TCCTTTAGTT AGATAAATAA TGTGTTTGGC CCATGTAAAT CAATTGTTTC 240
GTATCTCTTG GCAATAGAGC TCTAGCCTCT TCCAAATTCA GACTTGGATA AACTCGCTTA 300
TTTGAAACCG CAAGAGGAAG TCTGATGGT AGTTCAGGAT TTTTAAAAAT TATCTCAACG 360
AAATCCGTTA ATCTTAGATT GTCACGGTTC TTAAATCGTA ATAAATTGGG AGATAAAAC 420
TCAAAACAAT CTGAAGAATA GCTCATCATC TCAATTAATT TGTCCTTTGT CATTTCAGAA 480
ACTGAATGAC AAGATACCTC TATGCCATAG TTTTGAAGA AATCTAAAAG AAGTTGATTT 540
CTTTGTCTAT TTTTACTTAG ATAGAGATCA ATCATGGGAG ACCTCCCAAA GATTCGGTTC 600
CATTTGATAT TCTGACACGA TTAAGGAATC TAATAAATTA AGGAATCTAA TAAATTGCG 660
AAGTTAATCG GTTCTTGTG TTCATCATAA GCTTTTACAG TTAATTGGGT TGTAAGTATT 720
CCCTCTTTTC CCTCGGCTCG ATAGCCTTGT CCATATAAAA CAAAACGAG ATTTTGATGA 780
TCATCTACAA AGGCATCAAC CCCATTCTTT ATGTCTTGAC TTTCAAGGAA TTCCATAACG 840
TTTTGAAGAT AGGATTCGTA AAATAGTGGG TAGTTATGTT TTTTATGGTA ATCATCTAAA 900
AATGTCACCT CAAACTCACA TGGAGAGTAA TTTTGACTTT GAACAGCCTA AAAGTGCCAT 960
CAAATTTGAA TTGGAATAAA TCAAATAAAT AGCCCCATCC TCATCAATCC AACCTTTGCT 1020
CAAAGACAAC TCCAACCGAT CTTTAAAAAC TGAGTAAACC ACCTTAACCT CCAGTTTCAT 1080
ATTCTTATAC CGTTCACCT CAAATAAAAG TTTGGGAGC TTATAATAAC GCTCTGATGT 1140
CTGATATTGA TTAGCGGTAA TACGCTTCAT TATTGTCCCT CCAAGACTAA AATTCCAACA 1200

682

TTTCCAAAT CATCAATCG GATTAAACCT ACTTGTCCA TTTCATCAAC TAACTGAGTT	1260
GCTTTTACCC AAATCATTCA TACCTCTCTC AACTAGATGT AACTTACAAA ACCCCTGACC	1320
TCATGAGCCA CTTTCTTCCT CCTCATGAGG TCAGTTTAC TTTCTGCTGT TCCAGTATCG	1380
TTTTTCCTCG CTAGATTTCC TCAAAAGGGC AGACTCCTCC CTTGGTGCGT CACACGATTT	1440
TTTCATCTCG ACTGTTCTTT AATGCATCAT TAACGACGCT TTCTTCTAG GTGGTTCATA	1500
AGGAACAGGA AGATTCAGGT TGACTTTTCT AATCCTAGAA TAAAGTGCTG AAAACAATTC	1560
GGAATAGGCA TAGAGACTAG ACAATTTGAG GAGCTGCTTG CGTCTGTTC GAACACATTT	1620
TCCCACCACG TGAAGAAAAA GATGGCGGAA GCGTTTGATT GTTAAAGTTT GGAAGTCACC	1680
TCCAGCTAGA TGTTTGAGAA AAAGATAGAG ATTGTAGGCG ATACAGCTCA TCATCATACG	1740
AACTTCGTTT TTGATTAAAG TTGAATATC CGTTTATCG CCAAAAAATC CCTCCTTCAT	1800
CTCCTTGATG AAATTCTCGG CTTGACCACG TCCACGATAA AG	1842

(2) INFORMATION FOR SEQ ID NO: 86:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19390 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

TCATCTTTAT CTCCTCGAAA TTTTCTAATA TAGCCATTAT AACAGAATTT TGTGAAAATT	60
CCTATTATAG TAAATCACTA TTTCAGTATA AAAAGAAAAA ACGAATCAGA CGATTGCTC	120
TTCTTAAAT CTGAAAATAG CTTTCCAGAA AGGATTAGCC GATTTTTCG AGATTGAGCA	180
CTGCATCGTG ACTCATCAAG ACTTGACCAT ACTCTGTAA GACTGAGCGA CTGATATCAC	240
TATCGTCTGC AAACCTCGCG ATACGGGCCA ACAGCCAAGC TGGATATGGG CTGGATGAT	300
TTTCAATATC CACTAAAATG GTCAAATAAT AGCGCTCGTT CATTTGTAG AGTTCAGAAG	360
TTTCCATTC AAAAGTCACT GTCTTGCCAA AAGCTACCA GTCAGCCAAC TTAGCAAAAG	420
AAAGGATGTA GTAGATGTAA GGTCTTTCT TACTCTCAGC TTCTTGTTCA GCCTGCTCTT	480
GCTCTCTTC CTTGACTTCA ACTTGCTCAA GAGATTGAAT GGCTTCGATA TCATCCTTGG	540
TTTTGTCTGC GATGCTTTT TCCAGGGTTT TGATAAATC ATCTGGAGAC ATTTGAGCCA	600
ATCTTCCAT ATCTGGCAA TCCGATAAGT CTTCAAAATC TAGATTTTGG TCAATCTTTG	660
ACTTGGTCAC AAAGACATCT ACCTTATCAG GTTTTGGAGT CACACGGAAG CTCAACATGC	720
CTGTATCCAG AAAGCTATCA GGCATCTCTA GCTCATCCA GATAGCATAA AAGAACTCTT	780

683

CTGTTTTTTC TTGAGGAACG AGAAAGTCAG CAATCTCCAT TCCACGATCC ATCAAATCCT	840
CTAAAGATAT CGTGATTTTT AAAGTTGTAT CACTAATTTG TTTCATTTTC ATTGCTAGTA	900
ACCTCATACT TTCAGTTCTA TCTATTATAC TAGATTTTTA CGATTTTATC AAAAGAAGGC	960
TCCTCTATAC GGATAGATTT TCCCTAGGGT CTTTCTATAG GAGACTCCAA AAGAAAATTT	1020
CTGCAGACAG ATAGAAAAAG CCTTCAAAAT CGGCTAAGAG CCGACTTTGA AGACCTTATA	1080
CATCAGAATA CTTATAATTT AAAGGTTGCT ACACCGAGGA TAGAACGATT TAAGTTTCTG	1140
AGAATTTGAA GACTTTGCTC AAATTTCTTA TAACGAGTCA CTCCTACTC TTCAACAAGA	1200
AGGACTGTAT CTCTTTCCAA AAGAGATGAT ACATCCTGTA AATCTACAAA ATGCATTCCT	1260
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TTCTTTGTA AGCATTTTTC CTACAAATAT AATCACAAGA ACAATTCCCC AGAATTGCAT	2220
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CAAGATGAGT AGGGATAAAG CAAATAGGAT TGTCCTTGAG CGATAGGCTA CTTGCAGCAT	2340
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CAAGACAAGA TAGGATAGAT TGTGGGCATA ACTATTACTA TCAATAGCTA GTTCCACACT	2520

684

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685

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686

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687

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688						
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689

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690

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691

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TTGGTAGCTG TCGCCTCAAA GGCTCTATTG TGGATGAAGG GAGAAATAGA ATGCTTAATA	15300
GGATTGGCAA CAACTGCAGC TAAACGTGTA TAGCCATCAA GCTTCATCCA AAATCTCCCT	15360
GATTTTTCCTC ATGCTAGCTA GAGAAATCTG CCCAGGGGCA CTAACCTCAT CCAGACTGGC	15420
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CATAGAAATG GTCACATATT CCTGTTTCAAG ATTGAGGGTT TTAAAGCCTC GTGTATAGTT	15540
CATCAAGTCT AAGACATCCT GCTCCGTGTG AGCCATCACC GCAACCTTAA CAAGTTTGG	15600
ATTTAGGATC GTCAACTCTG ACAAGATTTT CATCATGTTT TCAGGTGTTT CTGGGAAATT	15660
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ATAGTACTCA AAATCAATAT AGTCTGGTTG ATAGAGTTGC GCAACTTCCT TGATTAGATG	15780
GATATACTCT TCTGGAGAAA GGTGATTTT TCCACCTTCG GAGCGAGTTC GTAGCGTGAA	15840
AACCAACTCA CGGCCTGCGA ATTTTTCAAA AATGGCTGGA GCTACCTGCA AAATCGCTTC	15900
TTTAGGCAGA TAGTCGGCAC GCCATTCAAT GATGTCGGCA TCCAGGTACC TCGTGGCATC	15960
CAGAGCCTGA GCCTCCTCTA AACTTCTTGG CATTACTGAA ACGATTAATT TCATTTACTA	16020
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TCTGCTGGAA GACCATATTT GTTTAAAATC TGGTAACTTC TTCCTGCAA ACCTTTATCA	16140
ATTTGTCTG TAAATTTCTG ACGGGAACA TTGGCAGCAT TGGTACTGGC AATGATAATC	16200
CCTCCCGGAT TTAATCTCTC AAGACTCTGG GAAATCAACT TGTGATAATC CTGGCCACA	16260
GAGAAAGTTT GTTTTTTATT CCGAGCAAAG CTAGGCGGAT CTAGGACAAT CACATCGTAG	16320
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TGCTCGTCTG TGCTGAGCCC ATTTGCCTGA AAATGCGCTT GAGACAATTC TCGTGAACGT	16440
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ACTTGATACA GGACACCATT TTCTAAAACA TTGAAAAAGT CAGGTGCTTC TTGACCATAA	16680

692

ACATGGGCAG ATTCATAGTC CAAACCCTTA AAGCGGATTT TCTCATAAGC TCCTAAAACC	16740
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TCACTGGCTT CTAGTAAAAC TAGCCCTTA GCAAGCTTCT TTTCACCCT TTTGCTGACT	17160
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ACCTTGCTT TTTTACTCTT CTTTAAAAA ATGGTATACT AGACTTCCTG CAAACTAGG	17280
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ATAATTCAC CTATCTGCAT CATCTATTT CGAACTCTAA ATATATGTTT TATCAAAAAT	17640
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TAACTATAA ACAACAAAA TAGAACTATG TTATATTTCT TATTCAAAC ATTCTCCCT	17760
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GTGTGTCGAA TTGAATTTAT CAAGCAAGCG ACCAACCAGT TCATCTTTT TCTATTTCTG	17880
CCAATATGCG TGACAGGTAA TAATGATAGC CAAAAATAGC AAGAGCAAGC AAGACGATAA	17940
GAGCTCCTAC TCCCAAGCTG ATGGCAAGGA TAGGGGAGAG AGACTGAACC AAGAATATGC	18000
TCCCAATTAC AAGGGCCATC AGGATTGCAC TATAAATAAA CAATAAACT ATGGCGACTA	18060
TGCCATTTGA ACGATTACAC AGGTCCGTAA TGCTACTCCA ATTGGTTGAC AGATTTTAA	18120
CGTCTTAAA GTAATGGTGG CAAGAAAGGA TGACACTGGC AATGATCCAG ACTACAAGAA	18180
GGTAAATCAT CGAAATGATG GGCAAGCCTA GATATAGAGA AAGACCAAGC AAAGTCAGAA	18240
CTGGTAAAAA GGACTGGACA GCATATATAA TCCAAAATTT CACTTTCACA TAACGAGCAA	18300
AGTCAAAGG TAAACTCTTA AGAAAATCAA CATTTCCCT CTCCAAGGAC AAGGCAATTG	18360
AATGCAGGCT GGTGATATTG TTATTGACAA CTGCTATAAA GAGAGCTATA AAAACAAGG	18420
GTAACCAGTA TGGAGGATGA ATGTCTGGAA CTATCTGAGA ATCTCGGATT TTGGAATCA	18480

693

GACCGATCAT CATGAGATAA GGAAGGAAAG CACTTGTAAG AAGCACTGTA ATCAGGCCAG 18540
 TCCCTGTGCC CAAGAGGGTG AGGTGGTAGC GTAAAACCAT GCGAAAAAAT CCCTTTTGTAG 18600
 TGGTTGAAAT TCTCTCCTTG CTGCGACGTT CTTTTTTGAC CTTCTCCTCA CTATTAAGCA 18660
 GGATCACGTC ATAAAAACGA GGAAGGACCT TCTTTTGGT CAGATAAAGC AGGAAGAGAG 18720
 TTAGTCTTAT CCAAGCGAGC AGACCCACTA AGGCTTCTGT CGAAAAAGGC TCCACTGCTA 18780
 TTTTGTAAGA GATATGAAGA GGATAAAGGA GAAATGGAAT GTCTCTAACT TTGTCAACAA 18840
 TACTTCCAAA AGTCGACTGA AGAAAGAAGA TAAATATTAA AGGTATGAGA ACTCCTATCC 18900
 CAATCATCAC ATTCGAAAAA ATAGACTGAT ACTTCTGAA GACCCTAGTT TGAGCCAAGA 18960
 AATGCACTGC CACTACCATC ACTAGAGCCA CAGAGACAAA TAATAAGGTC AAGGACAGTA 19020
 GCATCAAAGG CAAACCCAGC CATAGAGAAG GAGCTAGCCT AATGTAGAGG ACCAGAAAAT 19080
 AAGCTAGGAT TGGTACAATT CCAGTTAGAG CTGGCAAAG GACAGACAGT CCTTTAGCAA 19140
 TTATAATCTC TGATTCCTTA AAGGCATAGG GCCTATACGA TACCAATCC TTACTCTCAT 19200
 AAAAGACATT GTAAAAGGCC GTTAAAGAAG TTGAAAAGGC AATCACTAGT AAAATAGCAA 19260
 TCATCGAGCT AAAATAAATA GGTATTTCCT CAAAAGGAAA ATGAATGGCT ATATTACTAA 19320
 AACAGATGAT CATCAAGAGA CTGGAAAAAA TGTAAGAACT TAAGACTCTA GCGGAAACAT 19380
 TTACTTTTTT 19390

(2) INFORMATION FOR SEQ ID NO: 87:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18436 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

CCGAGCGTCG TTACAGACTT TATCAAGATT GGACGCAAGA AGAAATCAA CATATAAAGG 60
 AAAATATGGC ACAATCTCCA TGGCATACTC ATTACCATGT TGAGCCAAAA ACAGGACTTC 120
 TCAACGACCC AAATGGCTTT TCTTACTTTG ATGGCAAGTG GATCCTCTTT TACCAGAATT 180
 TTCCCTTTGG TGCAGCCAC GGTTTAAAT CTTGGGCACA GCTAGAAAGT GATGATTGTA 240
 TTCACTTTAA AGAACTGGA ATCAAAGTTT TACCAGATAC TCCATTAGAT AGCCACGGTG 300
 CCTACTCTGG TTCTGCCATG CAATTTGGCG ATAACCTATT CCTATTTTAT ACAGGAAATG 360
 TTCGCGATAA AAATGGATC CGTCACCCAT ACCAGATCGG TGCTTTGATG GACAAGGAGG 420

694

GTAAGATTAC AAAGATTGAC AAGATCTTGA TTGACCAGCC AGCAGACTCT ACTGACCACT	480
TCCGCGATCC ACAAATTTT AACTTTCAGG GTCAATATTA TGCCATTGTC GGCGGACAAG	540
ACTTGAGAGAA AAAAGGTTTC GTTCGTCTCT ACAAGGCTGT CAATAACGAC TACACAAACT	600
GGCAAGCAGT TGGCGACCTT GACTTTGCTA ACGACCGTAC TGCTTACATG ATGGAATGTC	660
CTAATTGGT CTTGTAGAG GAACAACCTG TCCTTCTCTA CTGTCCACAA GGATTGGATA	720
AGAAAGTTCT AGACTACGAT AATATCTTTC CAAATATGTA TAAGATCGGG GCTTCCTTTG	780
ACCCTAAAAA TGCCAAAAATG GTAGATGTGT CTCAACTTCA AAACATGGAT TACGGTTTCG	840
AAGCCTATGC AACTCAAGCC TTCAACGCTC CTGATGGCG TGCTCTAGCA GTTAGCTGGC	900
TTGGTTTGCC AGATGTTTCT TACCCATCTG ACCGTTTGA CCACCAAGGA ACCTTCTCTT	960
TGCTCAAGGA ACTCACTATC AAAGACGACA AGCTCTACCA GTATCCAGTC GCTGCTATTA	1020
AGGACCTTCG TGCTTCTGAA GAAGCCTTCT CAAACCGTTC CCAAACCAAG AACACTTACG	1080
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GCCAGGCTGG AGAACAGTAT GCCCAAGAAT TTGGGACAAC TCGTTCTTGC CCTATCGAGA	1260
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GATGTCGCCA AACTTGCAGG CGTCAGTCCT ACTACCGTTT CTCGGGTTAT CAATAAAAAA	1500
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AAACCAACA ACCTGGCTCG TAGTCTGCAA GGAAATCAG CTAAGTTAAT CGGCTTGATT	1620
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CTAGGAATCG AAGACTACAA TCGTGTGACA GCGCCGATTA TTTCCTTTGA CCGAAACCTA	1860
TCGCCAGACA TCCCTGTCGT CTCCTCTGAC AACTATGCTG GTGGGGTTCT TGCTGCCCAA	1920
ACCTTGGTCA AGACAGGTGC CCAGTCTATC ATCATGATTA CAGGGAATGA CAATTCTAAT	1980
TCGCCAACCG GACTGCGCCA CGCTGGTTTT GCATCCGTAC TCCCAAAAGC TCCTATTATC	2040
AATGTTTCCA GTGACTTTTC TCCCGTCAGA AAAGAAATGG AAATCAAGAA TATCTTGACC	2100
CGGGAAAAAC CAGATGCCAT TTTTGCTTCG GATGATTGA CAGCTATTCT GGTCAATAAA	2160
ATCGCTCAAG AATTGGGCAT TTCTGTCCCA AAAGAGCTCA AGGTCAATCGG CTATGATGGG	2220

695

ACCTACTTTA TCGAAAATTA CTACCCTCAA TTGGCTACTA TCAAGCAACC TTTGGAAGAG	2280
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ACTGGTTACT TCTTACCAGT TACGCTATTA CCAGGAAAAA GTATTTAAAC ACAAGAAAAC	2400
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CTAGGTAAAT GGTTTTATCT GAGATGAGGC GCTCTACTAG GGGAGCAACT TCAGATTCAC	2520
TAGCCCCAGC TAGGAGAGCT AGGGATTGG CCTGTAGTTT CATGTGGCCT TGCTGGATGC	2580
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ATTCCTGACC GTTGACAAGT ACCTCCGAA CCAGTGAATA AGGCAGAGAA AAAGTTCCCA	3540
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GGATAGGGCA GTTCGTTGGT TGAGCTTGT TAAACGGTCT TTATCCAAAT AAGCTTCATA	3900
TCCTTCAACC AATTCACCAC TGAAGAACTC AGCCACAGCT CCACTTCCGT AACTATAAAG	3960

696					
GGCGATTTTA	TCCCCAGCTT	TCAAGCTATC	TGTATTTTCC	AAGAGAGACA	AAAGTCCAAG 4020
GAAAAGTGAA	CCTGTGTAGA	TATTCCCCAC	CTTTTGACTG	TAGAGAATAG	ACTGGTCAAA 4080
ATGCTTTTGT	AAGAGGTCTT	TTTCTCTTGT	AGGCAGGCTC	TTATCCATGA	TTTTTTTCAA 4140
GCCTTTTAGC	GCTAATTTAG	GATAAGGCAA	GTGGAAACAA	ACAGCCGCAA	AATCATCCAA 4200
AGTAAGCTGG	TAGCGTTTTT	GATATTCAAG	CCAAGTCGTT	TTCAAACAT	CCAAGTATTG 4260
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CATGATGTCA	CGGGTCTGAG	CTACATTGTC	ATTATTAAAG	GCCATCATGC	GTGGATTTTG 4380
TGTAATCAAC	ATAGCTACAC	TTCCAGCACC	TTGAGTTGGT	TCTCCTGGAG	TTTCAATACC 4440
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CAATTTGGCA	TAATGGAGGG	CAGCAGTCGC	TCCGTAGCAG	GCTTCTTTAA	TCTCGAAACT 4560
ACGAGCAAAG	GGCTGGATGC	CCAGCAAGCC	ATGCACAAAG	ACGGCCGCG	CCTTACTCTG 4620
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TAAATAGAG	TCACTAGCAC	TGGCCGCCAA	GGTCACGATA	TCCTCAGTTA	GGGCGCAAT 4740
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TGCTAAGTCT	TGTAATTTCA	AGACATATTG	ACTGGTCGCA	AAACCAATCT	TATCAATACC 4860
GATTGTGATA	TTTACCTCTG	TTTATCATT	CATGTAAAAA	ATCGTTCTAT	ACTATTTTAT 4920
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TCATCATTTT	AAAGAATGAT	TAGTTGCTAG	AGAGTTCACC	GATATAAGTA	GCTTTATAAG 5040
CTCCATTAC	AGTTATCAGC	TCCTGGAGGA	TCAAATTTCC	TGAGTAAGTC	CTTCCCATCT 5100
CATCTACAAA	TTTTTGATAA	AACGACTGG	TCGGAATTC	TCTGACATCC	TTATCAAATG 5160
TCTTATCAAG	TGTTTTACTA	ACCTTCTCAG	CAATCAATTG	ATGCTCTTGC	CATCCACTTT 5220
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GATAGCGCAT	GGTTACAGGC	TTTATCTTCA	GCTGTTAGCG	GCTTGAGTTT	GCTGGATTTA 5520
CGTGGAGTTT	GTGCTTGAGG	ATATATCTTC	ATGAGCCCTT	GATAATCACT	GTCAGCCAAG 5580
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697

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CGGTGCCAAA ATGGCCAAGA TAAAGACCAC AGCAGGTGTC TTATAAAGAA TACTTAAAT	6240
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CATAGACCGT TGCACATTGA GTACGATTAA AAAAGTGATA ATGGCAAGAA AACTTGCTAC	6420
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ATTGAGGTCT ACCTTTTCAC CTGCTCTAGG ACTTTGTTCA ACAACCATGC CTCTGCACT	7440
ACCTGCAGGC GCTGTCGTCA CTCTACAAC TTCTATATTA GCTTCCTTAA TCCCAACAAT	7500

698

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ACTTGTAAC TTTTGTAGCTA CTGTCAAGAC AATTGAGTA GGTTTACTCA CATCATAAGT	7620
CGTTCCGGCA CCTGGACTTT GTTTCATAAT CGTTCCTGGT TCGCTTTCGC TGGACTCTTC	7680
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CACTGCCACT TCTTCCCCAT CTAAGATTAA GTCTTTGGCT AGGTAGACAT CCGCCATACC	9240
TCCTCGACCA ATCTGTTTGA CAATCCGATA GCGTCCGGCA AAAATCTTGC CGATTGGAT	9300

699

CATTCTGCAT CCTCCTCGTT CATAGAAACA AGGGCAACCG TAATGTTGTC TAAACCTCCT	9360
GCATTGTTAG CAAAACGAAC AAGTGTCTCC GTTTTATCTG CTAAAGGAAT ATCACTGGTT	9420
ACAATATCAC GAATCTCACT GCCTGAAATC ATGTTGGTCA AGCCGTCACCT ATTGAGCAAG	9480
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CCAATAGACT GGGTGATAAT ATTTTTCGTC GGATGAGCTT CTGCCTCTTC TGGTGTCAT	9600
TGACCAGCCT TGAGCAATTC ATTAACCAAG GAATGATCGC TCGTCAACTG ATGGTATTCT	9660
TCTCCACGAA TCAAGCCGAT ACGCGAATCA CCAATATGAG CATAGATAGC CTGATTATCA	9720
ATAATAGCAA GGACTTCCAA AGTAGTTCCT ATGCCTCTGT AAGCTTCATC CTGACCAAGC	9780
TGGTGAATCT TTTGATTTTC AATTTCTAGG TAATGGGCGA ACCATTACAG CACTTCATTG	9840
ACTGTATCGA TCTGGGTATC AACCCAAGCT ACACCCAGGT CTGTGACCGC CATTTCAC	9900
GGGATATTCC CTGCGCGATG ACCTCCCATC CCATCAGCTA AAATAATCAT GTTACGTCCA	9960
GCTCTATTGA CATAGTGGTT GACATAGTCT TGGTTATTTG TTCGTTTCTG ACCAACATCT	10020
GTTAATAATG AAATTTCCAT GTGTCAGTTC CTTCTTAATC CGATATCTTG CGAAATGAC	10080
TGATGAAGAA TCCATCACTT CCATACAATT CAGGTGTAAT GAGGATACAG CCGTCTTCA	10140
TGATATCCTT ACATTCATGT TCTAGTTTTC CTTGCTCGAA CTCGGGATGA CTCTCTAAA	10200
AGGCCTTAAC GACTTGAAAA TTCTCCTCTG AGACGATAGT GCAGGTGCTA TAAGTTATTA	10260
TACCACCTTT GCCTAGTATT TGACAAACAC TACCTAATAT TTCTAACTGA ATTTCTGCA	10320
AGGACGCGAA ATCTGCCGTT TCTTTATGTT ATTTGATATC TGGTTTTCGG CGCAAAAGAC	10380
CGATTCTTGA ACAAGGAGCA TCCACCAAAA TCTTATCAAA GGAATCCTGG TCAAAAACT	10440
CATGCACCTT TCTGGCATCC AATTTTTCGAG TTTGAACCCG ATCTTCAACT CCCAGACGTT	10500
GGGCATTTTC TTGAATTAAA TCCAACCTGT GGTGCTACAA GTCCAGAGCA GTAACTGAC	10560
CTGTCGTAAG ATAAGAGGCT ATATGGGCTG TTTTCCCACC TGGAGCCGCA CAGGCATCAA	10620
GCACTCGCTC ATCACCTTGT AAATCAAGCG TCGGAGCAAC CAGCTGACTG GACTCATCTT	10680
GGATGGTAAT GGCTCCATCC GCAAACAAAT TATGCCCTGC AAAATGCCCC TGCTCCTTAA	10740
CCAGACCAGT GGTGCTAAA AGGGAATTAT TCGCCTCCAA CAAGGCTTGG ATTTCTCTTT	10800
TTGACTTAG GTCTGTTACA CGAATACTGG CTTTGTTCG CACTAACAGG CTTTCAAAGA	10860
TGGCTTTTGC TCTCTCCTCT CCGTATTCTT CTTGAGTTT GGCAACTAGC CAACTGGGA	10920
GAGAATAGGC AATGGAGTCA CGCTTGTTTT TTCGCTTGAT GCTAGCAATA TCTGGCCAGC	10980
CTTCACGCAA GATACGGCGA AGGACAGCGT TGACCAATTT TTCACTGCCT TTTTACGGA	11040

700

GT TTGGCCAA TTCCACTGCT TCATTAAACCA CAGCATGATC TGGAACTCTG TCCAAATAGC	11100
GGAGTTGGTA GGGACTCATG AGAAGAAGGA CATAGAGCCA GCTGTCTAAC TGGTCTCTGT	11160
CTTCGATAAA GTGGGATAGG TACCATTCCA GAGTCAGTTT ACGGGCTACC GTTCCATAGA	11220
CCAGCTCGGT CACTAAGCCC TTGTCTGCTG CCAAAAGTTG ACTTCCCTTT AGATGCTTAT	11280
TTAAGGCGAT ATTTGAATAT GCTTGGTTCA CAAAAACATC CTCTAGCACT GCTAGAGCTA	11340
AACTTCTAGC CGTTTCTACT TTAGTCACCA AATCGTTCTC CTACAGTCAA TGTACGTCCA	11400
ACTCCGTGTA GGAAGGAAGC AATGTCCATC TTAGGCTTAC CAGCTGGCTG CACTTGTTTG	11460
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TCACCTGGAT TTCCCTGACC TTCTACTGGT AGGGCTTCAT AAATCTTAAA GCGGTGCCCC	11580
TTAAGGAAAG TATGGGCAAC AGGCCAGGGG TTCATTCCAC GAATTTGGTT AAAGAGTTGA	11640
CGATTGGTTT TGTTCAGTC CAGTTTCTCT TCCTCTGGCT TTATATTTGG AGAGAAGSTA	11700
ACCTGACTCG TATCCTGCGG TTCAGGTTTG ATATCACCAG CAATATAGGC AGGCAGAGTG	11760
TCCAAAAGCA AATCAGCACC AACTAGCGCC AATTTTTCAC ACAAGGTGCC AACATTGTCC	11820
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ATTTCCATGA TGGTCACACC AGCTTCCTCA TCCCTTGAA TCAAGGCATA ATGGATAGGC	11940
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TCCCGTTCTT GAGTCAAGGC TAAAACCTGG TTGAGGGTCG ACCCCAGCTC ATCTTCTAAA	12420
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GT TGGCCCCA GAATGGGACT GGTCTCTGAC AAGCCTGACC GCAAAATGTT CATGACTTCA	12540
TAGGCACGTT TGAAAACCTC TTCTTCTTTC TTGTGAGAAA GGGTAATACC AATCGTGAAA	12600
TAGTAAGGTG GATAGCCGAG TTGTCGTCTG ATTCCCATTT CATAGGCATA AAAGCCTTCG	12660
TAATCTTGAT CCTTGGCAAA TCGAATAGCA TAGTGCTGCG GATTGTAGGA CTGTATCAAG	12720
ACTTGACCTG CCTTTTCAGC CCGACCTGAT CGACCTGCCA CTTGAGTCAA GAGCTGGAAG	12780
GTTCTCTCAG AAGAACGGAA ATCAGGCAGA TTCAAGGCCG TATCCGCATT TAGAACTCCG	12840

701

ACTAGGGTAA	CATTGGGAAA	ATCCAAACCC	TTTGCAATCA	TCTGAGTACC	AAGTAAAATA	12900
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GTATCCACAT	CCATCCTCAG	AATGCGAGCT	TGGGGAAAGA	GTTCTGCTAG	CTCATCATAA	13020
GCCTTCTGAG	TTCCCGTCCC	ATAGTAACGA	ATACTGCGGC	TCTTACAGTT	AGGACAGACC	13080
TGAGGAATAT	CCTTCGAGAA	ACCACAATAA	TGGCAGTTCA	TAGTCTTGGT	ATCCATATGC	13140
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CGGTCTTGGA	TAGCCTCTAG	CAAAGGAGGC	GTAAGTTTG	ACGTCTCATT	TTGTCCGATA	13320
TAGTCTCGAA	AGTCAATCAC	TTGAACCTCA	GGGATTGTAG	CCAAAGGATT	GGCACGTTGG	13380
GTTAGACGTA	AGTGTTGATA	GACGCTTTG	CCAGCACGTG	CCCGGCTCTC	TAAGCTCGGC	13440
GTTGCAGATC	CAAGTACCAG	AGTTGCTTGA	TTATACTGAG	CCCGTAAAAT	AGCTACCTCT	13500
CTGGCATGGT	AACGGGGATT	GCTGTCCTGC	TTATAAGCCG	CTTCATGCTC	TTCATCAATA	13560
ATCATGACAC	CCAGATTTTT	CAGAGGAGCA	AAGATAGCAG	ATCTGGCACC	AACAACAAC	13620
TGGGCATCGC	CACGCTCCAC	CTTGCGCCAT	TCATCATACT	TTTCACCATT	GGATAATCCT	13680
GAGTGAAGAA	TGGCTACCTT	GTCCCCAAAA	CGTGCTATAA	AACGCTCGGT	CATCTGAGGA	13740
GTCAAGGAAA	TCTCAGGTAC	CAGCAAAATA	GCTGTCTTGC	CCTTATCCAG	GGCACCTTGG	13800
ATAATCTGCA	AGTAAACCTC	GGTCTTCCCA	CTTCTGTAA	TCCCTTGAAG	TAGAAAGGGA	13860
GGTTGAGAAC	TGCCAATAGA	ACTCACAACC	GCATCACGCG	CCTGTCTTTG	TTCTGGATTT	13920
AACTCCAAAG	GTCTACTTGC	TTCAATTCTT	TCAAAATAAG	CAGCCGAGCG	TTGAACTTCC	13980
TTTTGGACTA	TGGTAACAGC	ACCTTGATCC	ACAAAGAAGT	TGACTTGCTC	TCGCGAGTAG	14040
GACTCTAACA	AGCTAGCCAA	GGAAGCGCTC	TCTGGATGAG	ACAGCAGATA	ATCTCTCAGT	14100
TCCAACTTTT	TCTTGGCAGC	TGTAGAAATC	TCAACACCTT	CTAATTGAGC	ATGGTCAACC	14160
TCATACCAAG	ACTGGGTCTT	GACCTTCTTT	TGATCGACTG	CCTGATATTC	CAGACCAAGC	14220
AGGCCTTTTC	TAGTCAAACG	CATCATTTCA	GCTTGCTTGG	CAAGGTCTAG	TGAAGAAAAG	14280
GCTAGCGAAT	CTTCTGAACC	AAACAGGCGC	ACTCGTTCTT	CCTGACTCAA	GCCTTCCAGA	14340
GGATAGAGAA	TCTTGTCATA	GCTAGAATTC	AGAAACCCTG	GAAGCATGGC	CTTGAGGATA	14400
GAGATTTTGT	AGGAGAAGAC	AGATTTGCGT	AACTCCTCAG	CCAGCCAGAG	TTGTTCTGGC	14460
GTGAGAACAG	GAGAAAAATC	CAGCACCTCT	GCAATATCTT	TTAAATCTTG	CTCCATCTCT	14520
TCTCCATCTG	ATTGGGACTT	CAAACCAAGA	ACAATCCCTT	GAATCAGGCG	ATTACCCTTA	14580

702

CCAAAAGGCA CATGAACCG CATCCCAACT TCCAGCATTC CCTCAAATTC CTCCGGAATC	14640
CTGTAACATAT AGGGCTGGTC CGTCTGCATC AAGGGCACAT CTACGATAAT CTTAGCTAGG	14700
GCCATCTTCT CACCTCCTCC TTGTCAGTAC ATTCTTGCAA TAGAAAAAAT AAGATTGAGT	14760
CCCCCAACC TTAATTTTT TCACCATCTT CTTTTCTTT AGCAATTGTC TCTTTGATTT	14820
TCTTTCTTC TTCTTCTTG CGGCGTTTT CTTCTTCGAT ACGGCGACGC ACTGCTTCAC	14880
GTTTTCTTC TGGATCTGGG TGAATTGTAA CGTTTCCTGA TTCGATTTCT TCTAAAGCGC	14940
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GGGACGTTT TGCTTCCAAG ATTACGAGTG AATATTTGA AGGAACCTTG TCGAGCAAGG	15060
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CTGCTTCAAT CACACATTG ACACGTTGAG CAGCTAGGGG TACCTGATCG TTGACAATCG	15240
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GAGGAGTTCC ATAGTAGTTA CCGACATATT CTGCGTATTC CAACATCTGT CCTTGACGAA	15540
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GGGCTGCGCT CAAGGCATCT GCTGCAGCGA CGATAACTGC TATCACGCTC TCAGCTTCAA	16200
CATCTCCGTG GTGACTAGCA ATCGTATTC CCACAACTGG GGGTTCCTTG TACTTACGGG	16260
CCAATTCAT ACCGATTTCA ACGTGGCTAC CTTCAACCTC ATGGTCAATG GCTTCCCCGA	16320
TATCGTGAAG GAATCCAGCA CGACGGGCAA GAGCCGCATT TTCACCAAGT TCGCTCGCCA	16380

703

TGATACCAGC	CAACTTAGCA	ACCTCAATCG	AATGGCGCAA	AACATTTTGT	CCATATGAAG	16440
TACGGAACGTG	CAAACGTCCC	ATAATCTTCA	TCAAGTCTGG	ATGAAGGTTT	GGCGCACCAA	16500
TTTCATAGGC	AGCAGCCTCA	CCGTATTAC	GAATCTTATT	GTCAATCTCT	TGACGGTTTT	16560
TCTCAACCAA	CTCTTCGATA	CGAGCTGGAT	GTATACGACC	ATCTTTGAGC	AACATTTCCA	16620
TAGTCATACG	GGCAATCTCA	CGACGAATCG	GATCAAATCC	TGACAAGGTC	ACCACTTCTG	16680
GTGTATCGTC	GATAATCACA	TCGACCCCTG	TCAAACCTTC	AAAGGTACGA	ATGTTACGAC	16740
CTTCACGACC	AATAATGCGT	CCCTTCATAG	TATCGTCTGG	CAGATGAACT	GTTGAGTTTG	16800
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CCATTTTGTC	AGAACGTTCC	TTGACCTCTT	GCTCAGCTTC	GCGAATGCGA	CTGGCAATCT	16920
CCCTGGTCAA	GTTTTCTCT	GTCTGAGCCA	AGATAATATC	TCGTGCTTCT	GCCTGAGACA	16980
GCGCACCAAT	ACGCTCTAGT	TCTGCTTCTT	TTTGTCTTTC	GACTTCCTCT	AATTGCTCTT	17040
CACGCGCATC	AAGGTTTTTC	GCTCTATCAG	AAATACTTTG	TTCTTTTGT	TCAAGTGTTT	17100
GTTCTTTACT	CGTCAAAATG	TCGTCCTTAC	GGTCAAGGCT	AGTAGCTCTC	TCTGTCAAAC	17160
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GGTATTTTCT	GGCTTCTTCT	TTGGCCTCCA	ATAGTGCTTC	TTTTTTAAGA	GACTTGCTTT	17280
CACGTTTGGC	TTCAATTAACA	AGTAAATCCG	CTTCACGCTC	AGCTTGTCCTA	CGTAAATTAG	17340
TTGCTTCTTG	TTCAGCATTT	AAAAGCATCA	ACTCTGCAGC	TTCTTGAGAT	GATTTTCATCT	17400
TAGCTGAGAT	GCTGACATAT	CCAATGACTA	AACCAATGAT	GACGGCAAAA	ACAGCAATCG	17460
CAAGCGACAT	GATTTCCATG	TTTTTACCTC	ATTTTATTGT	TATCCGAAT	GACATACATT	17520
CTTTTACATT	CTACCATAAA	AAAGTGATTT	TCACAAACCT	AAAATAGAAT	ATGTTTGTAG	17580
GAATTGAGAA	CACATTTACC	AAAATAAACT	TGTTGTTTAG	AAATAGTAGT	TTAGTAGAGA	17640
CTTGAGAAAA	AGCCTACCTT	TCAATAGACT	TAGTAATGAT	CTTTAAAGGA	CAAGAAAGCC	17700
ACGCTATCTC	CATCCATCAT	ATAAATCAAG	CGATTTTCTG	CATCAATACG	CCGTGACCAG	17760
GCTCCTTGGT	AATCATATTT	GAGTGGTTCT	GGTTTACCTA	TTCTGTAAA	GGGATCACGT	17820
TGAATATCCT	TGATTAGTTT	ATTGATTCTT	TTTAAAGTTT	TCTTATCCTG	ATTTTGCCAG	17880
TAGCAATAAT	CTGCCAGGC	ATCTTCTGTA	AACTTGAGCA	GCATTTCTTA	CTCCTCAATA	17940
ACATGGACCT	GAGTACTTCC	AGCACGAACT	TGAGCCATTC	CTCGCAAAAC	CTTATCAGAA	18000
AGTTCCTTAT	TTTGAGCAAT	TCTCAGGGTT	TCTTGATAC	TATCCCACTC	ACTCTTTGAA	18060
AGGACTACAA	TGTCCTCATC	TGGATTTTTA	TTGACCACCG	TCAAAGGCTC	AAATTCATCA	18120

704

TTTACCTTCT TCATGTAGTC CTTTAAATGA TTTCGGAATG TTGAGTAAAG GACTGCTTCC	18180
ATAACCATAC CTCGTTTCTAG CTCTTTTCCA CTATTATACA CGAAAAGAAA GAAATTGTCA	18240
GGAACTTGTA CAAGATTTTC TTTTCTATCT ATTTATACTC AATGAAAATC AAAGAGCAAA	18300
CTAGGAACT AGCCGCAGGC TGTACTTGAG TACGGCAAGG CGACGTTGAC GCGATTTGAA	18360
TTTGATTTTC GAAGAGTATT ATTCGTAAAA AATCTCAAAA AGCCTACCTT TCGGTAGACT	18420
TAGTTTGTTC CTATTC	18436

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7001 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

ACGTAGAAAA ACTATTCTTA TCACAGATAA TATTCGGTAT GTTGTGGAG GTATTGAAAT	60
AAACGCCTTA GGTATCTTTC TCAGTCTATG TGACTTACAA GGGAAAATC TTTTCGAGAC	120
AGAAATTTTG AATGAAGATT ATCCTATTTC AGAAATCAAT TCCACCATTA CCAATATGAT	180
AAAAACAGCT ATAGAGTACG TCCCTTTGGA AACAAAATTA CTTGGATTG GCTTATCAAT	240
ACCTGGACAT TATAACAAAG ACTCCGGAAG TATCATTACA AACAAACCCA TATGGGAATC	300
TTTTAATTTA TTAAATGTAA TTTAAAGATT CAATTTTCCT TTTATTGTAA AAAATAATAT	360
CGATTGTATG GCTATAGGAC AATACCTTTT TAATCCACAC AATACCCCG ATAACCTTAT	420
TTTCCTACAC GCTGGATTAG GTATTACAC TTCCTTTTTC ACAAAGAAA AAATAGGAGC	480
CTCTAAAAAT CCTTATATCG GAGAAATTGG ACACACCATT GTCGAATTGA ATGGGCAATA	540
TTGTGAATGC GGAAAAAAG GTTGTTTACA AACATATATT TCGGATGCTT GGTAAATCAA	600
ACACGCCCAA TTATTATTTA AAAATTCCCA ACTAACTGTA CTAAGAGCC TTGTAAAGAC	660
TGAAAAAGAC ATTCATTAG ACACCCTTTT AACGGCTTAT AATTTAGGCG ACTCCGCTTT	720
ACGTCAACAA ATTGATAAAG GAGTCAATT ATTAGCCACT TCTATTGCAA ATCTCCTCCT	780
CATCAATCCT GCTGATAAAA TCTATATCAA CAGTCAATTG CTTAATTATC AACCTTTCAC	840
TCATGAAGTC AGGGATAAAA TCCAAGACCA GCTCCACTTC GTTCCCTTTA CTCGTAATAT	900
AGAAATTGAA ATTTTACCTT ACAACAAACA TCGTGGAAGT ATAGGAGCTT GTGCATTAGC	960
TATCGTCGCT TTTTTCATAG AACATAGCAA TGTATTACAA GATATTATTT CACCTTAATA	1020
TATTAGAAAT CTATAGACCT GTTTAAATCA ACTATAACCT GTAGTAGATA TCTCGTATTT	1080

705

AGACAATATG AAAACAAGAC GACTTCCATA TAGGAAACCG CCTTCTCGCT ATGTTGAGTG	1140
ATTTATATTA AAATAACTTT TCTTCTAGCT GCATTTTATT ATTATAAAAA CATTCATCAT	1200
AACCCCCAGA ACTTAAATAA CAATTTTAT TCAAGATACA TACTCCTAGA ATAAACTTTA	1260
TATGAAATTC TCATTTTGT TTTTACAATT CTCCTTAGTT AAATCTTGTT TAATATATGT	1320
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TCACAATATA TAAGTTCATC CTCGGAAGAA TATCATTCTA ATTGTTGAAA TGCCTACATG	1620
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TGATAGCATT TCTACAAATA CAAGTAAAGA GAGCGGATGA GATTCAAACG AAATATGTCA	1860
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AATACTAGTG TAACTATCCT TCCAGTCAGA AGCTTGTCOA ATCACACCGA AAATTCTTCT	2160
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GTTCAAAAAT TGATGGAGAA ATACAAACAT GGATAAAATG AAACCGGTCT TCCAAGCCCT	2760
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706

CITAGAATAT CATGGTTTAC GTGCCACACA AGATGTTGAT GCTTTTATGG CTCTATAATA	2880
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CATCAATAAG GATACACACA AGGAAATCAT CGCCAACTG GACTACGACG CCCCATCTTG	3120
CCCTGAGTGC GGAAACCAAT TGAAGAAATA TGACTTTCAA AAACCGTCTA AGATCCCTTA	3180
CCTCGAAACA ACTGGTATGC CTTCTAGAAT TCTCCTTAGA AAACGCCGTT TCAAGTGCTA	3240
TCACTGTTCA AAAATGATGG TCGCTGAAAC TTCTATCGTC AAGAAGAATC ATCAAATTC	3300
TCGTATTATC AACCAAAAAA TTGCGCAAAA GTTGATTGAG AAGATTTCTA TGACCGATAT	3360
TGCTCATCAG CTGGCCATTT CAACTTCAAC TGTCAATCGC AAGCTCAATG ATTCTCACTT	3420
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AGTGACTGTT TCAATCGGGA GATGGAGATG AGCTTTATTG CGCAAGATTT TGAAAAGCTC	3540
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TATGATAGAG CCGTCCGATG TCGCGTCAAA ATTATTACTA TGGATATGTT TAGTCCTTAC	3660
TATGACTTAG CTAGACAACT TTTCCCGTGT GCTAAAATCG TTCTTGATCG CTTTCACATT	3720
GTACAACATC TTAGCCGTGC TATGAGTCGT GTGCGTGTCC AAATCATGAA TCAGTTTCAT	3780
CGAAAAATCC ATGAATACAA GGCTATCAAG CGCTACTGGA AACTCATTCA ACAGGATAGC	3840
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GAGATTTTAG ACAAGCTTTT GAGCTATTCA CAAGACTTGA AACATCACTA TCAGCTCTAT	3960
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AAACAGGATT CCCAGAAATG CCAGTACCAC TAGCCACGG TACAACCATT GAGAGGTGTC	4440
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TGGATCTGAT TTTTGATAAA CAGCGACTCG TTCAAAATTC ACTAATAAGC GTTTATTAAA	4560
GGTAGGAATC GGATCGCAGG TTATCAAGGT CATGATATTT TTAGAGCTAA CCGATTCTAA	4620

707

TTTTTCCCAT TCCGACGGTA AAATAATCTC TGTGTCCATC ATCTGATATT CTACAATTTT	4680
CTGGCCATTA TCATAATAAA GAGCATCTCC AACTTTTAGC TGATCCAAAT GGCGGAAAAA	4740
GACATGGCTT GGCTCTGCAC GGTGCCCAGC AATCACTGAG CGAATCCCTG TACCATCCAG	4800
AGGCAGCGGT GTACCATCCA CATGAGCCAA GCCCATCCCT AAATGATGAT AATCTGCTCC	4860
CAAATAAACC GGCTCCATGA TTTCCAAAC TGAATAGAC AAGTAACCAT AGACTGCATC	4920
AGGGTCGTCA GACACTTGGT AATTGACCTC ATATCCCTCC GCCAAAAAG GATCTACAAT	4980
GCGATTTTGC GAAGCCAAGC GTTGATTGTA GGCAGAGAA TGGTTCTGTT GTTCTTGGTA	5040
CATTTCAGTT GTCATGGATT TCACAAATGT AGCATGACCT TTCACCTGTC CAAGAGACTG	5100
CAACACCATC TGTCAAAAC AATAAATAGG AATCAAACAG GCTACCAACA TCAACAAGTA	5160
TCCCAATAAG GCTCGTAGTT TAGTCCTTGA CATGACGCC CTCCAATTGC TTTTCTAGTC	5220
CTTTGACAAT CCGTCGATTA CGATACACGC GATACAGCAA GAGAAGGATG ACCGCCATCG	5280
CTCCTAGTAA TAACCACAAC CAGAATTGCC CACGCTCTCT CACCGCTCGA TTCCGCTCTG	5340
CAATTGGTGC CGTATACGGA ATCCGCTTCC CACGTACCAA CAGACGATGA CTGTTAATCA	5400
TATACGGTGT ACAAGTCAAC AAGGTCGCAT AATCTTCCCC ATGTTGAATC AAGACAGGCT	5460
CAAAGTCATT CGGCTCCACC GTCATATCT GATCCACTTG GTAGGCCAAC ACCTGATCTA	5520
AAACGTGAAG ATAAAAGATA TCCCCTTTTT TCATCTTATC CAATTGACTG AACAATTCTG	5580
CCGTTGGCAA TCCTCTGTGA GCAGTGATCA CTGTATGGGT ATTTTCACCT CCAACAGGCA	5640
GCGAAGCCCC TTCTAACAGC CCTGCCCTT TCTGAAGAAT GTCCTCACTC GTTCCGACAT	5700
ACATCGGAAT TTCCTGATCA ATCGCAGGAA TTCCACATA GCCAATCCGC TCATGGACCT	5760
TTAGCATATT GGCATATTCT GAGACGCCTT TCTTTTCTC TTGCTCTGTA AAAGGATCAA	5820
GAATTTGAGA TGGTTTCAAG GTCGCATTGA AGGCTTGAGC CAAGCGCCAA CGCTCCTCAA	5880
GTCTGCCTT ATCCATCTGG GAAACCGTCT CATCAAATC TTTAATAACC TCGTTTGAAT	5940
CAATACGATA ATAATAACGA GACACCAATG GATATATCGC AACGGCGAAT CCTACTAAGA	6000
AAATCAGAAG AAGGATCAGC GGATGTTTCT TCTTTTGTG GCCTTTTGT CGTGAACGTC	6060
TACTGTGTG CATCCTCCAC CTTCACTTCC TTCCTTGCTG CTTTCAGCGC CTTCAAAGCC	6120
TTTTCCGGTT GTTTTTTCTT CTTGCGCAAG CGTCGAATAA TCCATAAAAG AATCACAATC	6180
AAACCAACTG CCACATAAAA CAGGTAGCGA TAGAGATGAC TGAGTTTGTG TGCTGCAATA	6240
AATTCTTCCT CAACCTCTGC TACGTACGGT ATCCGATGCC CCCGAACCAA TAGACGATGG	6300
GTATTGATCA TGTATGGCGT ACAAGTCAGC AAGGTCACAT AATCATGACC TGGTACAATC	6360

708

AATAAATCAT CAAAGTTCGT CGGCTCAATC ACCTTTACTT GATCCACTTG ATAGGCCATC	6420
ACTTCCTTGA TATTGTGCAC ATAAACTTTC TCCCAACTT TAAGTTTGGT CAAATCCGTA	6480
AACATCTTAG CTGTTGGCAA ACCTGTATGT GCCGTAATCA CCGCATGGGT CGAATTGCCT	6540
CCGATCGGCA GAGAAGTTCC CTCTAGATGC CCAGCCCCTT GCTGCAATAC CTCTTCAGCA	6600
GTACCAGCAT AAACCGGCAA ATCCACGTCA ATAACGGGGA TTTCCACATG CCCCATCCGC	6660
TCATGGATTT CTAACATACG TGCATACTCT GCTCGCCCTT TTTTCTTCAT TTCTTCCGAC	6720
CAAGGATCGC CACTCACTAC ATTATTCAA GAGTCATTGA AGGCTTGTGC CAATTTTATT	6780
CGTTCATCAA TGTGAGCTC ATCCAACGTT GCTTTTTCCT TATCAAAGTC AGCAATTTGT	6840
TGATTTGATT CCACTCGATA ATACAAGCGA GACACCAGCG GATACGCCAT TACCGCCATT	6900
CCAATGAAAA ATACCACTCC TAATAGGAGA TTATTTCTGT TTTGCTTTTT TGTTTTTACC	6960
ATTTTTATCA GCATCCCTTT ATCTTCAAAC TTCAGGGTAT C	7001

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10411 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:

GAGGGAGCTT AAGAAGTAC CACCGTCCTC TAGCGCCTTA TCCGCATCAA AGTTAAGGTT	60
GATATTTTTC AAAGTGTGCG CAGCTTGTGA TACGATGCTT TGTTTAAGGT CATTTAGGGT	120
TTTAGTGAAA TCTGCATTGC TGAGGATATC ACTCTTTGAG AGATTCAAGG CAAAATTGAT	180
GATGATATTG ATCTGGTTTC CTGTTATGAC CTGATCAAGT TTGTAATTTT TTAAGGTATC	240
TTCAACAATC TTGGGGATAT CTTCTTCTGT CAGATTTCCC TTACTTTCTT TAGCTTTGGC	300
GAGTCCTGAC TTGATATCAG CTAGGGCAAC GTTTAATTTA TTAGCATCAT AGCCTGATTT	360
GTCCTTGTTC TCAGCATGTA TATCTGACAA AGCTTTTAGC TCTTCTTGAG CCAAATCTTT	420
ATTAGCTTGT GGCACCTTGG CTCCATTAGC CTCTAGCGAA TAGTAAATCC CTGCTAAAGC	480
ACTTTCTCCT GTAAGTGAA TAGGGGCTGC TACAGTGATT TTGGCATGTT CCATACCCAG	540
CGTTACTGCT GCGTTTCGGT ACATATCCTG AGTCACCTTA GTGATATTTT CTGGTGTTC	600
AATCTTGACC TCAAGTGGCG ATTTGTCAAC TAGCTTTTGA ATCTTGGCTG ATGAATACAA	660
CTGTAAGCTA GAGTCATTGG CCACATTCAT GATTTTAGAA TAAACATCAG GTGTCATGGT	720
CTTGAGTTCT TTGGTATCTG TTGAGGCATT GTAGCCAGT TTTTAAAGAG TTGATTTTT	780

709

TTGGTCTTCA GATAGGGAGG AACCTAGGAC ATATTCAGGT TGGACATAGG TTTCATCGAT	840
AACTTTTGA ACATCTGTTG CTGCATGGAC GCTATTCATA GCTGTTACTG CCCACAAGAT	900
CGCAGCGCTA GTCAGAAAGA GTTCTTTCT CATAGGAAT TTCTCCTTT ACTTCTTTAG	960
AGTAATATAT CTATCTTAAA GAAACTTAT AACAAAAACA CCTGGTCTAG CCAGATGTTG	1020
AAAAGAGAGT GAAACATTG ATGATGTAAA GGTAAAGTCG TACCTGTCTA GAATAATAAT	1080
AGTTTCCTCC ATTTACATAG AGTTCAGCAC CGTGAAAAAT GGAAATGGGG TGAATATAAC	1140
TATAAGTCTT TCCAGTCCTA TTACCAAGCA AGGGGGCAAC AGTCTCACGA GAGTACTGTT	1200
TGGCTAGAGC CAGGGTATTT TCCTTGCCAT TTTGGGCGAT AAAATCGATA TAGGCAGGTC	1260
CAAAATTATA GGCTTGAACA GCTGTCCAGA TATCTACCCC CTCTTCTGCG GCCAGATAGA	1320
GATTGCCTGT CAGAGTTTGA ATGCCTTGCC GAATGCTAGA GGCATTATCA TTGATGGTGT	1380
TGGTGAAC ACTTGCAGAC TCACTAGACT GCATAACATC GCCTTCTTTT CCTTTTGT	1440
CAGTATAAAT CATAGCAAGC ACAAGCTCTT CGTTTGCTGG GGTCTCTGT TCACTCAATA	1500
TTTCTCGCAC CATGGGTGA TAGGTCATGA CTGTTTGAC ATCTTGATGA ACGCGTAAG	1560
CTTTATAGCC AGCAAAAAGG AAGACTGCTA GTACAAGCAC TCTTCGAATT CGTTTAAACA	1620
TTATTTACTT TGGATATCCT CGATATTTT GATTAAGATA GAGTAGGTTT CATTTTCGTT	1680
TTGGATAAAC TCAACAGACT CGGCGTCTTG ATAGACGTTA TTGGGAACGA TGAGCTCAAT	1740
TCCATTGAT AAGGAGAGTT TTTGGTTTC AAATTTCTTT AATTGGCGAC TGGCATCAAT	1800
TTCATCAAAT TGAACAGGT CTGGTACGGC TTCTTTGACT TGGTCAATAA AGCTCAAACG	1860
AGCCGTCAGA TTGTGTCAA AAAGTCAAT AGCCAATTTC TCAGGTGACA ATTCATTGCT	1920
TTCTTCTAGG TTGTTGAAAA TAGCTGATTT GACCTTGAT TGAATGAA AATCATCTGT	1980
GTAAAGAT TTAGCAATTC TCTGGGCTGT TTTTCCAGT TCCTTGATAG ATTTTTAGG	2040
AGAAATCTTA GGAGCGACAG CAAGAAGATT ATCTGAAAA TAGTTCAAAA AAGTCCCGTT	2100
GTACTTGATT CGTTTTCAA TCAGGTGATA CTGCTACTC TGAAGATTGA CCACCAAGGC	2160
CTCATCAGCT CCTGTTCCAA ATCCAGGCAG GTTATTCTGA GTTAGCTTGA TTGATTATC	2220
AACTTCTCCT CCGAGGTGG TCAAGGTCTC CCGCAGGCA ATTCGCAAGA AAGCGAAATG	2280
TTCTACACCT TCTTTAGAAA ATGACAAAA AATCAAGTCA TTGGTCTTGA GATTTTCAGA	2340
AATGCTAAAC TCCTCTTTCC AGAGATTAGC CAGCGTTACT GATGTCTCCA ACAAATCGTC	2400
TGTAATATGA TTGAAGAAG GATTTTCTT TCGAAAAATC CCAGTCTTGG CTTCATCTGA	2460
ATACACATGT TCAATTTTT TACGCAGGTA TTCTTCGATT TTGGAGTAA TATTGAGAAA	2520

710

CTTATCTGCT AAGAACAGTT CGGTATCATC CGGACTGAAC TGGTGAATAA TGGCTTTCTT	2580
AATATAAATG TCCATAAAAG TTTTAGTCCT CGTATAATGG GAAAGCATCT GTCAATTCTT	2640
TGACTGCACT TCTCACTTCT TCTAATACAG CCTCATTTTC TGAATTCTTA AGGGTTTAA	2700
TGATGAGTTC AGCCACTTTG CGACTTTCTT CTTCAACAAA TCCACGTGCA GTAATGGCTG	2760
CTGCTCCGAT ACGAATCCCA CTTGTCTTGA ATGGTGACAA GCTTTCGTAA GGGATTGAGT	2820
TTTTATTAA GGTAAATATTG ACTTCATCCA ACAAGTTTGT AGCAACTTTG CCGTTTCTA	2880
CAACTTTAGT CACATCAACA AGGAAGAGAT GGTTTTCAGT TCCACCTGAA ATAATACGGA	2940
AATCAGGGTC TTGCAAGAAG ACATCTGCCA TAGCCTTGCT GTTCTTAATT ACATTGGCAG	3000
CATATTCCTT GAAGGCTGGA TCCAAAACCT CTTTGAAGGA AACTGCCTTA GCCGCCACAA	3060
CATGCTCTAA AGGACCGCCC TGAATACCTG GGAAAATAGC TGAATTGATT TTTTATGCAA	3120
GTCTTCGTC ATTGGTCAAA ATCAAACCAC CACGAGGTCC ACGAAGGTT TTGTGGGTCG	3180
TTGTTGTTGT GATATGAGCG TATGGAACCTG GGCTTGGATG AAGGCCAGCC GCAACCAAGC	3240
CAGCGATATG GGCCATGTCC ACCATGAGCT TCGCACCGAC AGCATCTGCG ATTTACGGA	3300
ATTTTGAAAA ATCGATAATT TGAGAATAGG CTGAAGCACC AGCTACAATC AGTTTGGTT	3360
TTACTTCTTG GGCTTGTTC AAGATAGCAT CAAAGTCTAA GAGTTCCGTT TTAGGATCAA	3420
CACTATAAGA ACAAAGTTG TAGGTTTGAC CAGAGAAGCT AACAGGAGCC CCATGAGTCA	3480
AATGACCACC TGATGCCAAA TCCATTCCCA TAACCGTATC ACCTGGCTCA ATCAAGGACA	3540
TGTAAGCCGC ACAGTTAGCT TGGCTTCCTG AATGTGGTTG AACATTGGCA AATTTAGCAC	3600
CGAAAATTTT TTTTGC CGT TCAATAGCAA GAGTCTCTAC AACGTCTACT ACATCAGTTC	3660
CACCATAATA ACGGCGTCCT GGGTAACCCT CGGCATATTT ATTTGTCAAG ATAGACCCCT	3720
GAGCTGCCAT AACAGCCTTG GAAACTACGT TTTCCGAAGC AATTAACCTG ATATTATTTT	3780
GTGGCGTTT TTTCTTTG GCAATAGCAT TCCAGAGATC AGCATCATAT GCTTTAAAT	3840
CATCTTTGTC AAAAATCATA GGTCTTCTCC TTTATTGTGT GACTAGTCCA TTAGTTTGAT	3900
TTTACAATAA GAAATCAAA CTAACAGATG CGAATAAACC GTTCTGTCAT TTTATCACAA	3960
GTATAGCCAA CTTTTTCATA AAATGCATGA GCACCCAGAC GATGATTGGC AGAATTTAAG	4020
CGGATAAACC CATAACCACA TCTTTTGTCT TCTTCTTCCA ACCCTTGATG TAAACTTTTA	4080
CCAATACCTT GACCTTGC GC TTGAGGTGAA ACTGCTAAAG CTAAGATATT AAATCCTGCT	4140
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GCATCCTCAT AGCCAAGTAG GAAATGATGG GAATCCTGAG ACAGTCTAGC TAGTTGGCTA	4260
GCCGTTTCCT CTGACTAAA AGTATAACCC AAAGCCTCTT GGTGATGTC ACATATAGCT	4320

711

TTCACATCAG TTTCTCTTAA ATCTCTTAGC ATCTCATTCC TCCTCAAAAG AAATCTTTGG	4380
CAACCGAGCA AGAATATCTT CTCGCTTAAT GGCCCTTGA CGTAAGATT TCACCTTGTC	4440
TCCCGACAAA TTCAAAATAG TTGAATCCTG TCCAGTTAGA AAAGCATCGT CTTCCAGACC	4500
CAGAACCTCT TGGTCAAAAT CCTCTAGAAT TTGATTAAAG GTCACTCCAC TCGCCTGACC	4560
TGAGATATTG GCAGACGGCC CAATCAAGGG ACCTGTCTCT CGAATCAAAT CAAGGGTAAT	4620
GGGATGACTA GGCATCCGAA ATCCAACAGT TGCAAGGCCA GAATTGACCC AATAGGGAAC	4680
TCGGTCATTA GCTTCGAGAA TAATGGTCAA GGGACCTGGT AAAAAGATCT CTACAAGTTT	4740
TTGAAGATAA GTTGGCTGAT TCTTTGAAAA GTACAAGATG TCCTCTAAAG AGGCAACATT	4800
GAGATTGAGC GCCTTGCTCT TACGTCGACG TTTAAGCTGG TAAACATGGT CAACTGCTTT	4860
TTCTCTAGC GCCTTAGCAA AGAGACCGTA AACTGTCTCT GTAGGCAAAA CGACAGCTCC	4920
ACCATTTTCC AACTCTTGTC TAATCCTGTC CATCATCAAC GACAACCATC CTATCTTGAC	4980
CAAATGGTTC CTTGAGTGTT CGTACTCGCT TTTCAGGAAG ATGTTTCCTA AAAAGTTCAG	5040
GAACACTTTG ACCTTGCTTG TATCCAATTT CAAGGTAAAT CTTACCACCA TCTTTGAGAT	5100
AGTCTTTTGC ATCTTCCGCA ATTCTACGGT AAATAGCTAG GCCATCCTCA TCTGCAAAGA	5160
GAGCTAGATG AGGCTCCGAA TACAAGACAT TCAAGCCTAC CTCTGACTCA TCTTCACGAG	5220
AGATATAGGG TGGATTGGAA ACAATTATAT CATATTTTTC AGAAATTTCT GTAAAACAGT	5280
CAGATTTTTT TAAAAATATT TGAAGATTTT GATTTTTCAG ATTTTCGCTA GCTACATCTA	5340
AAGCATCTTG GAAATATCT GCTGCCGTCA CTGACCAATC TGGTCTGTTT TTTGCTAGAG	5400
CGAGAGCAAT AGCTCCACTA CCTGTTCGCA TATCTAGGAC CATAAGATTT TTCACAGGAT	5460
TTTCAGCCAG GATAAGCTCC ACCAACTCCT CTGTTTCTGG ACGAGGAATC AAAACCCGTT	5520
CATCCACCTT TAAATGCATT CCATAAAAAT CTGCCTGTCC AATGATGTAC TGAGCTGGCT	5580
TGTGAGCTGC TAGTTGCTGG TAAATATCTT CTACAAATTG TTTTCTTCC TCTGTTGTCA	5640
CCTCCTGCTG GAGGGCAAAA ATAAAGTCTG TAAAAGATAG ATTTTTCAGA CTACGATAGA	5700
CAAAAGAGAG GCTTTCGCT TCCTCTCCTT GTCTTATCAA CTCTTCTTCA AAATTTGAAA	5760
ATAATTGAGC TAATTTCAAT ATTTGTTTAA TTCTTCTAGT TTTTGTGTTT GGTCAATAAG	5820
CACCAAGGCA TCCACAACCT CGTCCAATTT ACCAGACAAA ATCGTATCTA GTTTTGGAG	5880
GGTCAAGCCG ATACGGTGGT CTGTGACACG GTTTTGTGGG AAGTTATAAG TTCGGATCCG	5940
TTCTGAACGG TCACCAAGTAC CGATTGTCGA CTTACGCTCA GCGTCTGCT CATCTTGAGC	6000
AATCTGAGCA AAGTGGTCAG CAACACGGGC ACGGATGATT TTCATGGCCT TCTCACGGTT	6060

712

CTTCTGCTGG GTACGTTCTT CCTGCATCTC AACCTTGATA TTGTTGGCA AGTGAACGAT	6120
ACGAACGGCA GTCGCAACCT TATTGACGTT CTGTCCACCA GCACCAGAGG CGTGATAGAT	6180
GTCGACACGA AGGTCTTTTG GATCAATGTC GTATTCAACC TCTTCAACTT CTGGCATAAC	6240
AAGAACTGTC GCTGTGGAAG TATGAACACG GCCTTGGCTT TCTGTACAG GAACACGTTG	6300
CACACGGTGG GCACCTGATT CATACTTAAG CTTAGAGTAT ACAGACTGAC CTGAAACCAT	6360
AGCAACCACT TCTTTAAAC CACCGACACC ATTCATAGAG GCTTCCATGA CTTCAAAGCG	6420
CCAACCTTGG GCTTCCGAT ACTTTGGTA CATAGTTAGC AAATCTCCAG CGAAAAGTGC	6480
CGCTTCGTCT CCACCAGCTG CTCCACGGAT TTCAAGGATG ATATTCTTGT CATCGTTTGG	6540
ATCCTTTGGA AGGAGCAAAA TTTCAGTTT TTCTTCATAT TCTTCTTTT CAGCCTTGGC	6600
ATCTTTGAGT TCTTGCTTGG CCAATTCTTC CAAGTCCGCA TCTCCGCTG ATTCCTTAAT	6660
CATCTCTTCG GCATCGACGA TATTTGAAG GACTTGTTTA TACTCACGGT AGGCTATTAC	6720
GGTGTCACGA TTGGAAGCTT CTCTTTTGA AAGCTCCATA AAACGCTTGG TGTCTGAAAC	6780
GACATCAGGG TCACPCAGCA ATTCTCCTAA TTCTTCATAA CGGTCTTCTA CAACTGTAG	6840
TTGATCATAG ATGTTCAATT TTTCTCCTTA TTTCTCAATT GTTAAATCAT AGATTGCTAC	6900
TACTTCATTC TCGGATATTT CCCAGTTTC TTAAATCCA TAACTGAGGT AACAAAATCT	6960
TGCCTGTCA TTTTCTGGT CATAAGACAA CCAAAGTTTA TTGCTTAAAC CTGCTGGCGC	7020
TGTTGGAACA TAGTCTAGTA CTTTATCCAT AATTGGTTTA AAATATCCTT GATTTTGAAA	7080
ATTCTTATCA ATCATAAAAC GAAATAGTAA ATAATTCCA CTAATAATC CGATCTTTT	7140
ATCATAAGCT ATCATCACAA AACCTATAAT TGCATCATTA TCATAAACTG CCAATGGAGC	7200
TACAAAATCT CCATTTTATG TGTAGACGTA TGCTTCAGCT AAATAATTG CGTTGGTTGC	7260
AATGAATTGT TTTTGATATT CTTTGACATC CAAATTAAA ACATCAAAT AATTTCCAT	7320
TGTAACATCT CTTAGTTCAA TTGTCATAGT TTGCTCCTT GTTAGAGGT ATCATTGGCG	7380
CAAAATAATG TTTACGGCAA ACTGAGATAT AGGTTTCGTT ACCACCAATC TGGATCTGTT	7440
CTCCATCGTA AACGGGCAGT CCATCCTGTG TTCGCAACAC CATGGTCGCC TTTTCTTGC	7500
AATACTGACA GATGGTCTTG ATTTCTGCAA TCTTGCTGTC TAAAGCAAG AGATATTTGG	7560
AACCTTCGAA CAATTCATG CGAAAGTCAT TTTCAAGCC AAAAGCCATG ACGGTATGT	7620
CTAACTCGTC CACAACACGA GCTAGGTCGT AAACATGGTG GCGTTGAGA AACTGGGCTT	7680
CATCGACCAA AACACAGTAA GGTTTTCTG GTAGGTCTCG GATATAGCCA AAGATATCCG	7740
TTGTTTCTC AATCGCAAG GCAGGGCGT TCATGCCAAT TCGACTCGAC ACATAGCCAA	7800
CGCCGTCACG CGTATCCAGA GCCGAGGTCA TAATCACAAC ACCTTTTCTT TGCTCCTCGT	7860

713

AGTTATAGGC CACTTTGAGA ATCTCAATCG TTTTACCAGA GTTCATGGTC CCATAACGAT	7920
AGTACAACG TGCCATGTTT CTTGCTTCAC GTCCATTTCT AAATTTTGC TACATCTAG	7980
TATATCATAA TTTTCTTAAG CTTTAAACGG CAAAATGTGG TAAATAGAA GAAATCAAAA	8040
ACTAGTGGAG GAAGCTATTA TGCCATTTGT ACGCATCGAT TTATTTGAAG GACGCACGCT	8100
CGAGCAAAAG AAAGCTCTTG CTAAGGAAGT AACGGAAGCA GTTGTCGCA ACACTGGAGC	8160
CCCTCAATCT GCTGTCCATG TCATCATCAA CGACATGCCA GAAGGAACCT ACTTCCCACA	8220
AGGGGAAATG CGTACTAAAT AAGCTAGCTT AAGCAGAATT GCTTAGGCTT TTTCAATCTC	8280
CAAGTAGCAT TCATTGAAGA AATATCCTAA ATTTGTTACA ATTTGAAAAG AAACCTGGAG	8340
AATTTCCAAG AAAAGAGCTA TTAATTAAAG GAAACATTAT GATTACACGT GAATTTGATA	8400
CCATCGCTGC TATCTCTACT CCACTAGGTG AAGGGGCTAT TGGTATTGTC CGCCTGAGCG	8460
GAACAGACAG TTTTGCTATT GCGCAAAAGA TTTTAAAGG AAAAGACTTG AACAAGGTTG	8520
CCAGCCACAC TCTCAACTAC GGTACATTA TTGATCCTCT GACTGGTAAA GTCATGGACG	8580
AGGTTATGGT TGGGGCTATG AAGTCTCAA AGACCTTCAC TCGTGAGGAT ATTATCGAGA	8640
TTAACACCCA CGGTGGGATT GCGGTGACCA ATGAAATCTT CCAGCTAGCT ATTCGTGAAG	8700
GGGCTCGGTT GGCAGAACCT GGTGAATTTA CCAAACGTGC TTTTAAAC GGTGCGTAG	8760
ACTTGACACA GGCAGAGGCT GTGATGGATA TCATCCGTGC CAAGACTGAC AAGGCCATGA	8820
ACATTGCGGT CAAACAATTA GACGGCTCCC TTTCTGACCT CATTACAAT ACCCGTCAAG	8880
AAATCCTCAA TACACTTGCC CAAGTTGAGG TCAATATCGA CTATCCTGAG TATGACGATG	8940
TTGAGGAAGC CACTACTGCT GTTGTCGAG AGAAGACAAT GGAGTTGAG CAATTACTAA	9000
CCAACTCCT TAGGACAGCA CGTCGTGGTA AAATCCTTCG TGAAGGAAT TCAACGGCTA	9060
TCATTGGACG TCCCAACGTT GGGAAATCAA GCCTTCTCAA CAACCTCTTG CGTGAGGACA	9120
AGGCTATCGT AACAGATATC GCTGGGACAA CACGAGATGT CATCGAAGAG TACGTCAACA	9180
TCAATGGTGT ACCTCTCAA TTGATTGATA CAGCCGGTAT TCGTGAAACG GATGATATCG	9240
TTGAACAAAT TGGAGTTGAG CGTTCGAAAA AAGCTCTTAA GGAAGCTGAC CTAGTTCTGC	9300
TAGTACTAAA CGCTAGTGAA CCACTAACCG CCCAAGATCG CCAACTCCTA GAAATCAGTC	9360
AGGAGACTAA TCGCATTATT CTTCTTAACA AAACCTGACCT GCCTGAAACG ATTGAAACTT	9420
CGGAACACC TGAAGATGTC ATCCGCATTT CAGTCTTAA AAATCAAAAC ATCGATAAAA	9480
TCGAAGAGAG AATCAACAAC CTCTTCTTTG AAAATGCTGG TTTGGTTGAG CAAGATGCTA	9540
CCTACTTGTC AAACGCCCGT CACATTTCTT TGATTGAGAA GGCCGTTGAA AGCCTACAAG	9600

714

CTGTTAACCA AGGTCTTGAA CTAGGGATGC CAGTTGACTT GCTTCAAGTT GACTTGACCC	9660
GTAATTGGGA AATTCTAGGA GAAATCACTG GAGATGCTGC TCCAGATGAA CTCATCACCC	9720
AACTCTTTAG CCAATTCTGT TTAGGAAAAT AAGAAAAATC CATGATCCTT CATTGGGTCA	9780
TGGATTTTAG GTTCTATAAT ATTTGTAGTG GGTAAATCCA CTATAGATAT TATGGAGCCT	9840
ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATAATGA AAAGCGACAA AACAACTCAT	9900
TAGAAAGAAT CATATGGAAC AATTACATT TATCACAAA TTACTAGACA TTAAAGACCC	9960
TAATATCCAG ATTTTAGACA TCATCAATAA GGATACACAC AAGGAAATCA TCGCCAAACT	10020
GGACTACGAC GCCCATCTT GCCCTGAGTG CGGAAACCAA TTGAAGAAAT ATGACTTTCA	10080
AAAAACCTTC TAAATTCCT TATCTTGAAA CGACTGGTAT GCCCACTAGA ATTCTCCTTA	10140
GAAAGCGTCG ATTCAGTGC TATCACTGTT CAAAAATGAT GGTGCGTGAA ACTTCTATCG	10200
TCAAGAAGAA TCACCAAATC CCTCGTATCA TCAACCAAAA GATTGCTCAA AAGTTAATTG	10260
AAAAGATTTC TATGACTGAT ATTGCCATC AGCTTTCCAT CTCAACTTCA ACTGTTATTC	10320
GTAAGCTCAA TGACTTTCAC TTAAACATG ATTTTCTTG TCTTCCTGAG ATTATGTCTT	10380
GGGATGAGTA TGCTTTTACA AAAGGAAGA T	10411

(2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2393 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTTTGGGTT CTGGAATTA TCAGATGGTT GGAAAGCCG TCCACATCAA GATAGTGTTC	60
GGAGATTTAA GTTTAAATTG AAGAACTAA CACAGAGGAA ATGGAGTATA GACCTAACAA	120
GACGTATTGA GCAACTGAAT TTGTCTATTC GAGGATGGAT AAATATTGC TCATTGGGAA	180
ATATGAAAAG TATAGTCGCC AGCATAGATG AGCGCTTGG TACTCGCCTA CGAGTGATTA	240
TCTGGAAGCA ATGGAAGAAG AAATCGAGAC GATTATGGGG ATTGCTTAAG TTAGGAGTTC	300
CTAAATGGAT AGCAGATAAG GTATCTGGCT GGGGCGACCA TTATCAATTA GTAGCTCAGA	360
AGTCGGTACT TAAACGTGCT ATATCAAAC CAGTCCTGGA AAAACGTGGA CTGGTTTCGT	420
GTTTGGATTA TTACCTTGAA CGACATGCGT TAAAGTTAG TTGAACCGCC GTATGCCAAA	480
CGGCACGTAC GGTGGTGTGA GAGGGCTAG AGATTATCCC TACTCGATT AACTCCCCTG	540
AAATTTATTT TAATTATGCA AATTTACGT ATTTTGTATG CTGAGACGAC GATCCTGGGA	600

715

ACTTTTCAGA TATTTTTTTG ACTATCTAAA TCTATCATTA GAAAAGCTTA GAGCGCCAAA	660
GGATTGAGC GTTTTTCTGA TTTTAAAGAC TTTTCCAGT CTCTTTTTCG ATTGAAGATG	720
TAATTATTCT ACTAACTAAC TAACTTCTTA GTAGTAGCCA ACAACGATAA TCATAATTCC	780
TCCTAAAAAT AGGAATAATA AAGGCAATAG TTTTGTGTTT TTCATGTAAA AAACCTCACT	840
TTTGTTTTCT GCTATTTTAT GCTAAAATAT TAAAAATCAA ATTTAATTCC AAAGTTTGTA	900
ACTAAAGGGG GAGCGCTACA TGTCTAATTC ATTTGTCAAG TGTGTAGTCT CTCAATTATT	960
TGCAAATTTA GCAGATATTT TCTTTAGAGT AACAAATCATT GCTAACATAT ACATTATTTT	1020
AAAATCAGTA ATTGCCACAT CACTAGTTCC TATCTTAATA GGAATATCCT CTTTGTGTGC	1080
GAGTCTTTTA GTTCCGTTGG TTAATAAAG GTTAGCGCTA AATAGGGTTT TATCTTTATC	1140
TCAATTTGGA AAGACTATAT TATTGGCGAT ACTGGTAGGA ATGTTTACCG TAATGCAATC	1200
CGTAGCGCCT TTGTGACCT ATCTATTTGT TGTGCAATT TCCATACTAG ATGGTTTGTG	1260
AGCACCCGTT TCCTATGCTA TTGTGCCACG CTATGCGACC GATTGGGTA AGGCTAATTC	1320
AGCCTTATCA ATGACTGGTG AAGCTGTTCA ATTGATAGGT TGGGGATTAG GTGGACTCTT	1380
GTTTGCAACA ATTGCTCTGT TACCTACCAC GTGTATCAAT TTAGTCTTGT ATATCATTTT	1440
TAGCTTCTG ATGTTATTTT TTCCTAACGC TGAAGTGGAG GTGTTAGAGT CAGAACTAA	1500
TCTTGAAATT TTGCTCAAAG GTTGGAAGTT AGTTGCTAGA AATCCTAGAT TAAGACTTTT	1560
TGTATCAGCA AATTATTGG AAATTTTTTC AAATACGATT TGGGTTTCTT CCATTATACT	1620
TGTTTTTGTA ACGGAGTTAT TAAATAAAAC GGAAAGTTAC TGGGGATATT CTAATACAGC	1680
ATACTCTATT GGTATTATAA TTAGTGGCTT AATTGCTTTT AGGCTATCTG AAAAGTTCCT	1740
TGCTGCTAAA TGGGAACCCC AATTATTCAC CCCAAATCTA AAAACCATCC AGAATCCTTG	1800
CCTPAGCTTA GATCCTGGAT GGTTCCTTTT TTCACCCAAT GGGTGTTTT TACTAGACAA	1860
AAAAGAGTTT CCCCTTTATG GTATAAGTGT AGAAAAAAC AAAAAAGAA AGGAACTCA	1920
CATGAACAGT TTACCAAATC ATCACTTCCA AAACAAGTCT TTTTACCAAC TATCTTTTGA	1980
TGGAGGTCAT TTAACCCAGT ATGGTGGTCT TATCTTTTTC CAGGAACTTT TTTCCAGTT	2040
GAAACTAAAA GAGCGGATTT CTAAGTATTT AGTAACGAAT GACCAACGCC GCTACTGTCTG	2100
TTATTGCGAT TCAGATATCC TTGTCCAGTT CCTCTTTCAA CTGTTAACAG GTTATGGAAC	2160
GGACTATGCT TGTAAGAAT TGTCAGCTGA TGCCTACTTT CCAAATTTGT TGGAAGGAGG	2220
GCAGCTTGCT TCACAGCCAA CCTTATCCCG TTTTCTTTCC AGAACTGACG AGGAAACAGT	2280
CCATAGTTTG CGATGCCTCA ACCTTGAATT GGTGGAATTC TTTTACAGT TTCACCAGCT	2340

716

AAACCAACTC ATTGTAGATA ACGATTCTAC CCATTTCACA ACTTATGGCA AGC

2393

(2) INFORMATION FOR SEQ ID NO: 91:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4762 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

TTTGTATCTT TTTAGGTCTC TTTCAATCCA AACCCCTTAA ACTATACGTC ATTTCGGTTC	60
CTGCAAGTCT TGTGGTAATT TTAGGTTTGA TTTTACTTTT CTTTTCACAA GAGCCTCTGC	120
ACGCTTCTTA TTTGATGGTC GTCTCCCTG TTTCTCTACT TTTATTTGTA ACCAATATTA	180
AGAGTCAACA GAGGGGGCGT AGTGCTAGAA GAAGCCGAAG AGAAACGCCA TTATGCCTAT	240
GGAGTCGTTT CTTCAAAGGA AATCTATATC TGCTAGTTT TGGGTTTGTC TATCTTTTGT	300
CTGTTCCCTT TTTGATGAAG TTTGTCCTTT ATCCAGTACC TTATCAAGAA CGTAATCGTC	360
TTGCTGATTT GGTAAGAG GAGACAAATA CGGAAGATGC TATCTCATGC ATGGGATGAT	420
ACTGCGACTC TTTATCGTAA GAGTGAGCGC TTGTCCCATC GGCGATTTTG TCCCCGTGTC	480
ACTATACAGC AACTGAGGAA AATCGTAATA AGTTACTTAA TGAAGTGAAG GAAAAACAAC	540
CTAAGGTGAT TGTGGTAAAT GATAAGGTGG TAGTCTGGTC TGAAGTGGAA ACACTCTTAA	600
AAGAAAATTA CCAACAAGTA AAGACTGATT ACTCAGAGTT TAAAGTCTAT AAAATTAAAT	660
AACCAAATCA ATATCTTGTG TATTTTAAA AATTTTAGGA TTTTAAACAC AAGATATTGA	720
TTTTTCTTTT TAGAGTGGTA TAATACTTTT TAGAAAGAAC ATTTTAGAAA AGAGCATGCA	780
TATGATTGCA CTAGAAGAAA AAATTACAAT TTTGCCAAT CTCTTCGTCG AGAAACGAGA	840
TGGGAGACGT GTTGATTG ATGTGGACAA GATTGACAAG GCTCTCCACA AGGCGGCTGA	900
CAAGGTTATG GATGTGACAC CCCTGGTTGA AAAATGCCTC AATGATCTGA CTGAGCGAAT	960
TATTACAGAA ATTCATAGTC GCTTCCACA GGAATTAAG ATTTACGAAA TTCAAATAT	1020
CGTAGAACAT GAATCCTTG AAGCCAAAGA ATATGCGCTG GCTGAGGAGT ATATTACTTA	1080
TCGGACACAG AGGGATTTTG AGCGCTCAAA AGCGACGGAT ATCAACTTTA GTATTTCATAA	1140
ACTTCTCAAC AAAGACCAGA CAGTTGTCAA TGAAAACGCT AATAAGACA GTGATGTCTT	1200
TAACACTCAG CGTGATTGA CAGCAGGGAT TGTGGGAAA TCAATCGGAC TGCAAAATGCT	1260
TCCTAAGCAC GTAGCCAATG CCCACCAAAA GGGGATATC CACTATCAG ATTTGGACTA	1320
CAGTCCCTAT ACCCCTATGA CCAACTGCTG TTTGATTGAT TTAAAGGTA TGTGGAAAA	1380

TGGTTTAAAG ATTGAAAATG CAGAGGTAGA GAGTCCCAAG TCTATCCAGA CTGCGACAGC	1440
ACAGATTCTCT CAAATCATTG CCAACGTTGC TTCTAGCCAG TACGGTGGCT GTTCAGCTGA	1500
CCGTATCGAT GAAATTTTGG CGCCTTATGC AGAGAAGAAT TATCAAAAAC ATCTCAAAGA	1560
TGCAGAAGAG TGGGTATTGC CTGAAAAACA GGAAGATTAC GCTTGGAAGA AAGCGCAAAA	1620
GGACATCTAC GATGCCATGC AATCTCTTGA GTATGAAATC AATACTCTCT TCACTTCAAA	1680
TGGACAAAACA CCTTTTACTT CGTTAGGTTT TGGTCTGGGA ACCAGTCGTT TTGAACGAGA	1740
AATTCAAAAA GCTATTTTAA ACATTCGCAT CAAGGGTCTT GGTTCAGAAC ACCGTACGGC	1800
TATCTTTCTCT AAACCTATCT TTACGCTTAA AAGAGGCTC AACTTAGAGG AAGGAACCTC	1860
CAACTATGAC ATCAAGCAGT TGGCTCTAGA GTGTGCAACC AAGCGGATGT ATCCAGACGT	1920
CTTGCTCTAT GATAAGATTG TTGATTTGAC AGGTTCCTTC AAGGTGCCTA TGGGCTGCCG	1980
TTCTTTCTCT CAAGGGTGGG AGGATGAAAA TGGTGTAGAA GTCAATTCAG GTCGCATGAA	2040
TCTGGGTGTT GTGACGGTTA ATCTGCCTCG TATGTCTCTT GAGTCTGAAG GTGATATGAA	2100
TAAGTTCTGG GAAATCTTCA ACGAGCGAAT GAATATCGCA GAAGATGCTC TTGTTTACCG	2160
TGTCGAACGC ACTAAGAGG CGACACCAGC GAATGCTCCT ATTCTTTATC AGTACGGTGC	2220
TTTGGCCAT CGTCTAGGTA AAGAAGAAAG TGTGACCAG CTCTTTAAGA ATCGTCGTGC	2280
GACCGTTTCG CTGGGCTATA TCGGCTTGTA TGAAGTAGCG ACAGTTTCTT TTGGTAACAG	2340
CTGGGAAAGT AATCCAGATG CTAAGGAATT CACGCTAGAC ATCATTCACG ATATGAAACG	2400
CCGTGTAGAA GAGTGGTCAG ACCAATATGG CTACCATTTT TCTATCTACT CAACACCATC	2460
CGAAAGTCTG ACAGACCGTT TCTGCCGACT AGATATAGAC AAGTTTGGCT CTATTCCTGA	2520
TATCACAGAC AAGGAATACT ACACCAACTC TTTCCACTAC GATGTTGTA AAAATCCAAC	2580
ACCGTTTGAA AAATTGGACT TTGAGAAAGT CTATCCGAA GCAGGTGCGT CAGGTGGTTT	2640
CATCCATTAT TGTGAGTATC CAGTCCTTCA GCAAAATCCA AAGGCCTTGG AAGCTGTCTG	2700
GGATTATGCT TATGACCGTG TAGGCTATCT AGGCACCAAT ACTCCGATTG ACCGTTGCTA	2760
CAAGTGTGAC TTTGAAGGGG ATTTTGAACC AACTGAGAGA GGGTTTGCTT GTCCAAACTG	2820
TGGCAATAGC GACCCATAAA CAGTAGATGT GGTGAAACGA ACTTGTGGCT ACCTAGGTAA	2880
TCCTCAAGCA AGACCGATGG TCAACGGGCG TCACAAGGAA ATCGCTGCGC GTGTCAAACA	2940
TATGAATGGT TCAACGATTA AAATAGCTGG GCATCAAGTA ACAAATTAGA AAGAAATGAA	3000
ATGGGAAAAT ATCAACTAGA CGATAAGGGG CGCGCACAAG TGACCCGTTA TCACGAGAAA	3060
CACTCTAAAG GTGGAGCTGG TAAGAAAGAA CGCTTGCTTA GCTTCAGAGA ACAAATTTTA	3120

718

AACAAGAACA AGAAAAAATA AAAGTGAGAG CCAGCTCTCG CTTTCTCAT AGTGGGAGGT	3180
AAGGATGGAA TTACGCAGAC CAAGATTAGC GGATAAGAAA GCTGTTTTAG ATATGATGAC	3240
AGAGTTTGAA AAATTTCACT CGCCTCACGA CGGCGGTTC TGGGATACAG AGAACTTTGT	3300
GTATGAAGAC TGGTTAGAAA GCAATCAGGA ACAGGAAATG GGGATTAATC TGCCTGAAGG	3360
ATGGGTTTCT GCAATTCAGT TAGTGGCTTT TTCTGAGAAA GGTCAAGCAG TTGGATTCT	3420
TAATCTCCGG TTGCGCCTCA GTAACCTTCT ACTAGAAGAA GGTGGCCACA TTGGCTACTC	3480
CATTCTGCCA TCTGAAAGAG GCAAGGGTTA TGCAAAAGAG ACTCTCCGTC AGGGCTTGCA	3540
AGTTGCTAAG GAAAAGAACA TCAAGAAAGC TCTGGTGACC TGTAAGTGA ATAATCCTGC	3600
TAGCAGAGCA GTCATTCTAG CAAATGGTGG AATATTTGAG GATGCTCGCA ATGGAGTCGA	3660
GCGTTATTGG ATAGAGGTAG CGAATGAATA ATCCAAAACC ACAAGAATGG AAAAGCGAGG	3720
AACCTAGTCA AGGTCGTATC ATTGACTACA AGGCCTTTAA CTTTGTGGAC GGCGAAGGCG	3780
TGCGCAACTC TCTCTATGTA TCAGGCTGTA TGTTCACATG CGAGGGATGT TATAATGTTG	3840
CGACTTGCTC TTTTAATGCT GGCATTCCCT ATACAGCAGA ATTAGAAGAG CAGATTATGG	3900
CAGACCTTGC CCAACCTAT GTTCAAGGCT TGACTTTGCT GGGAGGGGAG CCTTTCTCA	3960
ATACTGGGAT TCTCTTGCCA CTGTGTAAGC GGATTCGGAA GGAATTGCCA GACAAGGACA	4020
TCTGGTCCTG GACCGGCTAC ACTTGGAAG AAATGATGTT GGAACTCCA GATAAATGG	4080
AATCTTGTGC ACTGATTGAC ATTCTGTGCG ATGGAAGATA TGATCGAACT AAGAGAAATC	4140
TTATGCTCCA GTTTCGAGGT TCATCTAACC AACGAATTAT CGATGTGCAA AAATCGCTCA	4200
AAAGTGGGCA AGTAGTGATT TGGGACAAGC TCAATGACGG AAAAGAAAGC TATGAACAGG	4260
TGAAGAGAGA ATGAAGAAAA AGGACTTAGT AGACCAACTA GTCTCAGAGA TCGAGACGGG	4320
GAAACTCAGG ACACTGGGAA TATACGGTCA TGGAGCTTCA GGTAAATCAA CCTTTGCACA	4380
GGAATTGTAC CAAGCTTTAG ATTCTACTAC AGTAAATTTG CTAGAGACAG ATCCTTATAT	4440
CACCTCAGGA CGCCATCTGG TAGTACCCAA GGACGCGCCG AATCAAAAGG TGACAGCCAG	4500
TCTGCCAGTG GCGCATGAAC TGGAGAGTTT GCAGAGAGAT ATCCTTGCTT GCAGGCGGGT	4560
ATGGATGTCT TGACAATTGA AGAACCTTGG AAGGCTAGTG AGGTCTTGTG TGGAGCCAAA	4620
CCAATTTTGA TTGTCGAAGG GATGTCTGTT GGCTTTCTAC CCAAGGAACT CTTTGAAAAA	4680
ACCATCTGTT TCTACACGGA TGAGGAGACC GAATTAAAGC GACGCCTTGC TAGAGATACG	4740
ACTGTGAGAA ATCGCGATGC GG	4762

(2) INFORMATION FOR SEQ ID NO: 92:

(i) SEQUENCE CHARACTERISTICS:

719

(A) LENGTH: 3832 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

GATGCAGGTT TCGACCCACA TATTCCAGAA AATTACTTTA AAGATGATGA TGTTAATCAG	60
GTACCTTGTC TTGTTGGTC TTCATCTGCA GCCCTCTTTT TCAGTAATTG GGTAGACCAT	120
GCGGTCTATC AGGAGACGCC TTTTGATTGG AGAAAGATAG AAGATGATGC ATCTGCATAT	180
GGGTATTTAT AAGAGGAATT ATGACATATT TAGACGCTTT TAAATCAGGT ACCTTGTTTT	240
TACCGAGTGC CCGTCTCTTG CATTTTAAGG AACTCTTTCC TTCTAGCGAC GATTTTCTGG	300
TTTGCCAATT TTTCTATTG CAAAATACGA CAGGCTTAGA AGAAATGTCG CCAAGCCAGA	360
TTGCTGAAAG GATTGGCAAG GAAATTTGCG ATGTCAACCA GTCCATTTCT AATCTGACGG	420
AAAGGGGACT GCTCCAGTAT CGTACTATCG AATTAAATGG CGAAATTGAA TTGCTCTTTG	480
ATGCTAGTTT GGCCTTGGA CGTTTGATG ACCTGTTTG AGCAGTTCAT TCAAGTTCAG	540
ACCAGCTAAC ACCTCAAAAC CAGCTCAAGG ATTTGGTGGA AACCTTCCAG CAGGAGTTGG	600
GACGATTGTT GACGCCTTTT GAGATTGAGG ATTTGACCAA GACACTAAAG GAAGATGGAA	660
CCAGTGCTGA CTTGATTAAG GAGGCTCTTC GTGAAGCTGT TTTGAATGGA AAACCAAAT	720
GGAAGTACAT TCAGGCGATT TTGAGAACT GGCGCCATGA AGGAATCAAG AGTGTGGCTC	780
AAATTGAGGC CAAGAGAGCA GAAAGAGAAG CAAGCAATCC TCAGTTGACA CAGGTATCTG	840
CAGATTTTAT AAATGCCATG GATCTCTGGA AGGATTAATC CATGCAAGTA GGCTTGAAAT	900
CCGAGTAAGA TTTGCAAGCT GTGTATAATT GTGATAGAAT AAATAGAAAA TAAATTGAAA	960
AAAGAGGTAT GTGAAATGTC ACGTAAACCA TTTATCGCTG GTAAGTGGAA AATGAACAAA	1020
AATCCAGAAG AAGCTAAAGC ATTCGTTGAA GCAGTTGCAT CAAAACCTCC TTCATCAGAT	1080
CTTGTGAAG CAGGTATCGC TGCTCCAGCT CTTGATTGA CAAGTGTCT TGCTGTTGCA	1140
AAAGGCTCAA ACCTTAAAGT TGCTGCTCAA AACTGCTACT TTGAAAATGC AGGTGCTTTC	1200
ACTGGTGAAG CTAGCCACA AGTTTGAAG GAAATCGGTA CTGACTACGT TGTATCGGT	1260
CACTCAGAAC GCCGTGACTA CTTCCATGAA ACTGATGAAG ATATCAACAA AAAAGCAAAA	1320
GCAATCTTTG CGAACGGTAT GCTTCCAATC ATCTGTTGTG GTGAATCACT TGAAACTTAC	1380
GAAGCTGGTA AAGCTGCTGA ATTCGTAGGT GCTCAAGTAT CTGCTGCATT GGCTGGATTG	1440
ACTGCTGAAC AAGTTGCTGC CTCAGTTATC GCTTATGAGC CAATCTGGGC TATCGTACT	1500

720

GGTAAATCAG CTTACAAGA CGATGCACAA AAAATGTGTA AAGTTGTTCG TGACGTTGTA	1560
GCTGCTGACT TTGGTCAAGA AGTCGCAGAC AAAGTTCGTG TTCAATACGG TGGTCTGTT	1620
AAACCTGAAA ATGTTGCTTC ATACATGGCT TGCCCAGACG TTGACGGTGC CCTTGTAGGT	1680
GGTGCCTCAC TTGAAGCTGA AAGCTTCTTG GCTTTGCTTG ACTTTGTAAA ATAATCAGTA	1740
AGTAGCAAAA GCTAGGTGGA ACAGCATTCA GATGTCTGTT ACATTTTSTA TAGGAGAGAA	1800
AGATTGAAAA CAAAAATTGG ATTAGCAAGT ATCTGTTTAC TAGGCTTGGC AACTAGTCAT	1860
GTCGCTGCAA ATGAACTGA AGTAGCAAAA ACTTCGCAGG ATACAACGAC AGCTTCAAGT	1920
AGTTCAGAGC AAAATCAGTC TTCTAATAAA ACGCAAACGA GCGCAGAAGT ACAGACTAAT	1980
GCTGCTGCCC ACTGGGATGG GGATTATTAT GTAAAGGATG ATGGTTCTAA AGCTCAAAGT	2040
GAATGGATTT TTGACAACTA CTATAAGGCT TGGTTTATA TTAATTCAGA TGGTCGTTAC	2100
TCGCAGAATG AATGGCATGG AAATTACTAC CTGAAATCAG GTGGATATAT GGCCCAAAAC	2160
GAGTGGATCT ATGACAGTAA TTACAAGAGT TGGTTTATC TCAAGTCAGA TGGGGCTTAT	2220
GCTCATCAAG AATGGCAATT GATTGGAAT AAGTGGTACT ACTTCAAGAA GTGGGGTTAC	2280
ATGGCTAAAA GCCAATGGCA AGGAAGTTAT TTCTTGAATG GTCAAGGAGC TATGATGCAA	2340
AATGAATGGC TCTATGATCC AGCCTATTCT GCTTATTTTT ATCTAAAATC CGATGGAACT	2400
TATGCTAACC AAGAGTGGCA AAAAGTGGG GGCAAATGGT ACTATTTCAA GAAGTGGGGC	2460
TATATGGCTC GGAATGAGTG GCAAGGCAAC TACTATTTGA CTGGAAGTGG TGCCATGGCG	2520
ACTGACGAAG TGATTATGGA TGGTACTCGC TATATCITTG CGGCCTCTGG TGAGCTCAA	2580
GAAAAAAAAG ATTTGAATGT CGGCTGGGTT CACAGAGATG GTAAGCGCTA TTTCTTTAAT	2640
AATAGAGAAG AACAAGTGGG AACCGAACAT GCTAAGAAAAG TCATTGATAT TAGTGAGCAC	2700
AATGGTCGTA TCAATGATTG GAAAAAGGTT ATTGATGAGA ACGAAGTGA TGGTGTCAAT	2760
GTTCGTCTAG GTTATAGCGG TAAAGAAGAC AAGGAATTGG CGCATAACAT TAAGGAGTTA	2820
AACCGTCTGG GAATTCCTTA TGGTGTCTAT CTCTATACCT ATGCTGAAAA TGAGACCGAT	2880
GCTGAGAGTG ACGCTAAACA GACCATTGAA CTTATAAAGA AATACAATAT GAACCTGTCT	2940
TACCCATCTCT ATTATGATGT TGAGAATTGG GAATATGTAA ATAAGAGCAA GAGAGCTCCA	3000
AGTGATACAG GCACTTGGGT TAAATCATC AACAAGTACA TGGACACGAT GAAGCAGGCG	3060
GGTTATCAAA ATGTGTATGT CTATAGCTAT CGTAGTTTAT TACAGACGCG TTTAAAACAC	3120
CCAGATATTT TAAAACATGT AAAGTGGGTA GCGGCCTATA CGAATGCTTT AGAATGGGAA	3180
AACCCATCATT ATTCAGGAAA AAAAGTTGG CAATATACCT CTTCTGAATA CATGAAAGGA	3240
ATCCAAGGGC GCGTAGATGT CAGCGTTTGG TATTAAGCGA TGATTTGAAA GAGGGATGTG	3300

721

ATAGTAGCAC CCTCTTTTTC TTTGTTTTAT GATAGTTCAT CCTCGAGTAA ATTCAAGTTC	3360
TTGCTCGGAA ATGAAGCTTA TATAGTAGAT TGAATATAGA CAAATACCTT GTGATTGGTA	3420
AAACATTTTA GAAATTCATT TACCTTTCCT AATCGACTTG GTTTCATCTT ATTTCAATCT	3480
ATTATAGTAT TGGGGAATTT CTTCAAACCA CATCAGCTTG GTCAGTCTA CCTGCCACCT	3540
CAAACTTGT GCTTTGGTCA AGCTGGGTTT AGTTTCCTAG TTTGCTGATG GATTTCATT	3600
GACTATAAGC ATCCAACCCT CTTTTGTCT TCTAAGAAT TCTTAAATTA TCAGTCTATT	3660
GCAACTTTTC TCATATAAGT TCTTTGTCTT GCTATTGGTT TTCCTTAGTA GTATACTAAG	3720
GTAGTAATCA TTAAGAAGTG GTTACAAAA ATAATGAATG AGGTAAAGAA AATGGTAGAA	3780
TTGAAAAAAG AAGCAGTAAA AGACGTAACA TCATTGACAA AAGCAGCGCC GG	3832

(2) INFORMATION FOR SEQ ID NO: 93:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10690 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

TGAAAAAATC CTCATGAACC TGGCGCCAAT AGACAAGTGT CTGTTCCTCC TCACCTTCCT	60
TATAGGCATG GTCAGCTGAC ACTCGATTGA AGGGTTTAAC AGAAACCTTT GTAATTCGA	120
CAATGCAGAC AGCCTGATTT TGAATATCTA AAATGACATC GAAGGTCCCT ACTTGGGGAA	180
GTGGTTCGTC TTCTAGCACA TAGAGGTCAT AGGCTGATGC TGTGCTGTC TTTTCTCCTT	240
TAAACACCAA ATCCGCTAAA AGGTCTGGTT CAACTCCAAA AGCCCAGGCA TCGATTTCAT	300
CTCCGATCAA AGGATTGATT TGCTTGATTT TATTCACAT TTCTTGCGGT ATCATGGGTG	360
CTCCTTTGTA ATTTTCTACT TTCTTCTTTT ATGTGTTTAA GATGATCTGG ATGGTCAATC	420
TCTAAATCAA AAATCTCTGG AATAGAACTG TAGTGGATAA TGCACTTGAT ACCCAACTGA	480
TTCAATTTTT GTATGAAAGA AGTATTCAGA TAGCCTGCTA CAGCAAAATC AATCTTGTTC	540
TTTCTTGCTT TATCCTGCAT ATCTCTTAGC ATATCTAACA TTATTGGACT TTCCATATCA	600
TGCCATTGAC TGTTCCTCAT AGTCGCAAAA ACAAGGAAG TCAAATCATT CATTCCAAC	660
ACAATCTTTG AAATGCCCCG TTCCAGTATA CTAGATAAGT CAAAATACGC TGACGGTAAT	720
TCAATCATCG TTCCGACTTT CCCAGTAAAA CCCTGCTGAC GCAATACTGT AATAGCTTGT	780
TTAATTGGT CGGCATCATT GACAAAAGGA AAGATAACAG ATAGATTGGG GTTGGTTTGA	840

722

TAAACTTCTG TAACGACATG TGCTTCAGCC TGAAATTCAT CCAAACACGC CAGTAAACGC	900
CTAGTTCCTC TATAGCCAAA CAAGGGATGC CCTTCGTCAA AAAACTCTTT AGTCCCCACT	960
AAACAATTGG CTCTGTATT CGTTAATTCA GTAAAACGAT ACCAACTTC CTTACCTAAG	1020
TAAAAGGAGC AAATAGTATC AAGATAATCT TTCACAAATT CCGACAACCT TTGTAATAGT	1080
ATATTTTGAT TGAGCTCTCT CAATAAGTAT TCCCCACGAA TCATGCCGAC GTGGTGAAAT	1140
AGTTGAGGAT AAATTTTTC AAGAATTTT TCGCCACTAA GGGCAAGTTG ATTTCTCATC	1200
ATTACCTTC CAATTCATGT AAGAAGTCTT GTCCAGTTCT GGAAATCCTA ATAATTCAGA	1260
CTTAACCTTC AAGACTAATG GCGATGCATT TTCTTCTGTA ATCTCTTGAA TATCCATCCA	1320
AATATATCCA AGTGAATCAT TCGCACCATC AGACACAGCT TCCGAAATCG TAACTTGAGG	1380
TGCACCTCA TTCAATTCAA CATCATACAA GGCTATGACA TGGTGAACCA TAAAATTTT	1440
TAACTCTTCC CTGACGAAAA CATCGTAGAT TCGAGGATTA GAGTAGCTTC TAACAGTAAA	1500
TCCCGTCTCT TCCATAACTT CTCTAGTCAG CGTTTCCGTC AGTCCTTCAC CAAGTTGCTG	1560
ACTGCCTCCA GGTAGATCAT ACCGATGTTG ATAAGGGCCT CTCGTTTTTT CAATGCAAAG	1620
TAACTTTCCA TTTTCAAAGC AAACACAGTA GACCCCAAAG TGATTTTGA TTTCCATCCA	1680
ACTCCTCCTA CTCAAAGAC CAGCCACCAT CTATTGTCAA GATTTGTCCT TGCATGGCGC	1740
TCGCTTTTCC ACTTGCTAAA AAAAGACTAA GCTCTGCTAT TTCCTCTGGC TCAATCCAGC	1800
GCTTGATTGG GGTTCACCTA GCCACCCAGT CAGCCAAACC ACCTGGTTCA AAATCCGCAG	1860
CGGTCATAGC TGTCTTGACT GCTCCTGGAG CGATACCAA GACCTGAATC CCAGCTTCAG	1920
CATAGTCTAG AGCCAACTGC TTGGTGAAGC CAGCCAAGGC ATGCTTGATG GAAGTATAGG	1980
CGTGACCACC TCCACCTGCT AGGCTAGAAG CAATGGAACA CATATTGATG ATGATTCCCT	2040
TTTTATTTT CAGCATTTGT GTCAAATAAT ACCGAGTCAA CTCTACTGGA ATAATGTAGT	2100
TGATTTCAAA AATCTCTGA ATGTCCTGCG CCGTTTGTTC CAACAGTGGT TTGTAATCAT	2160
CCAAACTCC AGCAGTATTA CACAAACAT CCACCTGAGG GCACCAGTCA AAAATAGGTT	2220
CCAAGTCCAA GGTCAAATCT CTCTGTAAAA AGCGAAAATC ACCCTCTAAG AGTGGCTTTT	2280
CACCTTGGTC AACTCCATAA ACTTGATAGC CCTTCTCTAA AAAGAGGCGA GCTTGAGCCA	2340
ATCCGATCCC TGAACCTACT CCTGTAATGA GTACACGTTT AGTCATGCAC TTCTACCCAA	2400
TCCGTGCGCA AAACATCACA AACTGTGCGG CTCCACATGG AAAAACCTTC TCCTTCGCCA	2460
GAAACGTGTA TTAGGAAATA AGGTGTCATT TCAAGTGCAA GCCCATTTTG CTCGATGGTA	2520
TCAAAGAGTT GGACATAGTT TTCCGCACCT CCCCAACCAG TTCGTACATA TTTTCTCTTA	2580
GCCTTTAACC CAGGCAGGAT CTCTTCAAAT GTCATGTTTT TCTCCTTTAA TTCTACATTC	2640

723

TTCAATTAAT TATAGCAAAA AACCGCTTTA TACGGCTTTT TGAATGTGAG TTATTCAAAC	2700
CTGCTACTAC TTACGGCAAA TTATTCCTTG CAGCAAGATA AATTCATAC CATTCCTTTC	2760
TTGTTAAGCT AAAGTTTGCC GCTCGGCTAA CTCTCTCAA GTGCTTAGGA TTTGTTGTAC	2820
CTACGACTGC CTGCATTTTT GCTGGATAAC GCAATATCCA AGAAATGGCA ATAGTTGAAG	2880
AGGTTACTCC ATATTTAATA GCTAAACGAT CAAGTACTTG ATTTAAAGCT TGAAATTTCT	2940
CATTTCCAAC AAAATTCCTT TTAATAATACC CGAATTGTAA GACAGACCAT GCTTGAATGA	3000
CCACATCGTG TAATTGGCAA TATTCAAAAA TGCTGCCATC TCGCATAGCT GCTTGACTAT	3060
CTTCCATATT AACATGAAAA GCTGATTCAA ATCCTGGAGT AAAAGCCGCA CTCAATTGTA	3120
GCTGATTAAAC AGCTAACGGC TGCTTGACAT CTTTTTTAAG CAACTCCATC ATCATAGGAT	3180
TTTGATTAGA AACTCCAAAA TCTCGAAGTT TACCTTGTTT ATAAAGGAGA TTAAAGGCTT	3240
CTGCTACTTG GTCAGATTCC ATCAAAGCAT CTGGTCGATG AAGGAGCAAG CTATCTAGAT	3300
GATCAATCTT CAATCTTTCG AAAATACCGT CTAAGTATTT TATAATATAG TCCTTAGAAA	3360
AATCAAAATA GGTAAATTCT TCAATGCGAA TGCCACATTT GGACTGAATC CACATCTTTT	3420
CTCTTAAATC TGGACGATT TTTAGGACAA GACCTAACAG TTCTTCACAA CGACCACGAC	3480
CATAAATATC AGCCAAGTCG AAGGCATTGA TTCCAACAGA AAGTGTGTT TCTACAAGCT	3540
CTTCAACTTC TTTTACAGAT TTATCTTTTA TTCTCATCAT TCCGAGAACA ATTTCTGATA	3600
ATTCTTTGTC ATCTTGACCA AGAGTTATGT ATCTCATCAA ATTTTCTCC TTTAATTTCT	3660
AACATTCTTC CCTTCATTAT AACAAAAAC CGCTTTGCAA CGACTTTTTC ACTATACTTC	3720
ACTCCATTTT ATCTTCTTAA ACCCACGGAA CAAGACAAAG ATTCCAATAA AGAGGACAGC	3780
TAAAGGAATA ACTTTTGTA GGAACACATT TGAAATTCCT ATCCACTCAT AATAACGGAG	3840
CAGAGAACCC ACCACAAGAT GGGCAATAAT CATACTGACA AATGGACGAA AGACCGCTTC	3900
TTTCCAATTC CAAATACCGA TAACTAGCGA AATCGTAAAG ACAGACAAAC TATCCAGGG	3960
AGCCGGAATA TAAAGGCTC CTCTTGATAT GAAGCTTGCC ATTCCTACAT ATCCTAAAAAC	4020
AACTAGAAGA ACTATAGTCC CAACAACAAT GTAAGTGCCA ATTTTCATTT TAGGAGAATC	4080
TTGGACTAAA CTCTTCGTA AAATTGTGGC CACAAGTCCA AATCCAATCA GAAAAATAAG	4140
AAGTTGCCCT AAAAATGTGA GCAAATTGAC TGTTAAGAGA GGACCTTTAG AAAAATCACT	4200
TAGTAGTTGA TAATAACGTA ATACCGCCAG GACAAGAATT GGCGTCAAAA GGGACTCTTT	4260
GATAGAAGTG CGAGGTGCTC CCTTGAGAAT CTCTTTCATT ATTTTCTTAG GATTCTTACC	4320
TAGATAATCC TCTGCACTCA TGCCATCTCG TTCTGCTTCT GAGAAATCTA GCATCATCAA	4380

724

ATAGATCTGC TCTCTGAGAT AGTCCTCATC ATAGAGAAAT CCAGCAAGAT TAAACTTTC	4440
CCACAACCTCC TCAAAATACT TTTGATTCTC CTCAGAAAAC TCATGTAGCA AAGCGCTTGT	4500
TTCTTCGTAA TACTTCATTT TCTTCATGGT TTAACCCCA TTCTTAATCC CTTCTACTTT	4560
TTGACTCAAA TCGTCCCAT TTTGCCAAAA GACTGAGACA CGCTCTTCTC CTTCTTTCAT	4620
TAATGAAAAA TACTTCCGAT CTGGACCATC TGGCGACGGG CGCATGTCGC CTCTTATCCA	4680
TTGATTTTTT TCTAACTTTT GCAACAAAGG ATAAATAGTT CCTGGAACGA TAGTATCAAA	4740
TCCAGCCTCT CGCAAAGTCT GAACCAACTC ATAACCATAC CGCTCTTTTT GACCAATCAT	4800
ATCCAAGACA CAACCTTCAA GAACACCTTT TAATAGCTGA GTTCTTTTCA TCACTTCTCC	4860
CTTCTAATCT ATTTTGTAAT ACCTACTAGT GACTTCACCT ATAGTATATC ACTTCTACAC	4920
TAGTTTGTA AGCATAATAG TTAATACTCT TCGAAAATCT CTTCAAACCA CGTCAGCGTC	4980
GCCCTACCGT ATGTATGGTT ACTGACTTCG TCAGTTTCAT CTACAACCTC AAAAACATGT	5040
TTTGAGCTGA CTTGTCAGT TTCATCTACA ACCTCAAAAC AGTGTTTTGA GCTGACTTCG	5100
TCAGTTTCAT CTACAACCTC AAAACAGTGT TTTGAGCTGA CTTGTCAGT TTCATCTACA	5160
ACCTCAAAAA CATGTTTTGA GCTGACTTCG TCAGTTTCGT CTACAACCTC AAAACAGTGT	5220
TTTGAGCAAC CTGCGGCTAG CTTCCCTAGT TGCTCTTTGA TTTTCATTGA GTATAAATAA	5280
AAAAACAGAA CTAGCCTGAA CTAGTCTGT CTACTTTTAC CCAATCACAC TTCCATTGG	5340
TACAGCTGGA TCAACTGTGA GAAGGTTAA TTTGCCATCA TGTTCAGCTG AGAGAATCAT	5400
ACCTGCGCTG ACATATTTTT TCATCATTTT ACGTGGTTTG AGGTAGCAA CGATTGTAAC	5460
TTTCTTGCCG ACCAATCTT GTTCATTGG ATAGTATTTT GCAATTCCTG AAAGAATCTG	5520
ACGATCTTCT CCATCACCAG CATCCAAGCG GAATTGAAGC AACTTATCTG AACCTTCTAC	5580
TTTAGACACT TCTTTGACTT CTGCGACACG GATTTCACC TTGTCAAAGT CTTCAAACCT	5640
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TGGTTTATTG CCTTCCATTT GTTCCTTGAT ATAGGCGATT TCTTCTTCCA TATTTAGACG	5760
TGGAAAGATA GGTGTTCTT TGGCAACTAC AGTCACATCT GCTGGGAAGT CAGCCAACT	5820
CAAGTTTTC AAGTAGAAA CTTCTTCCAA ACCAAGTTGA GTCAAACTG CACGACTAGT	5880
TTCCATCATA AATGGTTCAA TCAAGTGAGC AACTACACGA ATGCTGGCTG CCAAGTGGCT	5940
CATGACACTT GCCAATTGGT CACGAAGAGC TTCATCCTTG GCCAAGACCC ATGGTGCAGT	6000
CTCATCGATG TATTTATGG TACGAGAGAT CAGAGTCCAG ACTGCTTCAA GCGCACGTGG	6060
ATAGTCAACT GCTTCCATGT GTGTATGGAA GTCTGCGATT GATTGTWCTG CAACCTCAGC	6120
AAGAACATGA TCATATTCAG TCACACCTTC TACATAGGCA GGGATTGTG CATCAAAGTA	6180

725

CTTATTAATC ATGGAAACCG TACGGTTAAG GAGGTTCCCA AGGTCATTAG CCAATTCATA	6240
GTTGATACGG CCGACATAGT CTTCAGGAGT AAAGGTTCCG TCTGAACCAA CTGGAAGGTT	6300
ACGCATGAGG TAGTAACGAA GTGGATCTAG TCCATAACGC TCTACCAACA TTTCAGGGTA	6360
AACGACATTC CCTTTTGA CT TAGACATTTT TCCGTCTTTC ATGACAAACC AACCATGGGC	6420
AATCAAACGA TCAGGTAATT TAACATCCAA CATCATAAGA AGGATTGGCC AGTAGATAGA	6480
GTGGAAGCGA AGGATATCTT TTCCTACCAT ATGGAAGACT GTTCCATTCC AGAACTTGTC	6540
AAAGTTACCA TGTTGCTCTT GAGCGTAGCC AAGAGCTGTC GCATAGTTAA GAAGGGCATC	6600
AATCCAAACG TAGACAACGT GTTTTGGATT TGATGGGACA GGCACCTCCC ATGTAAAGGT	6660
TGTACGAGAT ACCGCCAAAT CTTCCAAGCC TGGCTCGATG AAGTTGCGTA GCATTTTATT	6720
AAGGCGACCA TCTGGCGTGA TAAATTCAGG ATGAGCTTTG AAAAATTCTGA CCAAACGGTC	6780
TTGGTATTTG CTAAGCGCAA GGAAGTATGA TTCTTCAGAA ACCCATTCAA CCTCATGACC	6840
TGATGGAGCA ATACCACCAG TCACATTTCC AGCTTCATCA CGGAAACTT CTGCCAGCTG	6900
GCTTTCTGTA AAGAATCTT CGTCTGATAC TGAATACCAA CCAGAGTATT CACCCAAGTA	6960
GATATCATCT TGAGCAAGTA AGCGTTCAAA GACTTGTGCG ACAACTTTTT CATGGTAGTC	7020
ATCAGTTGTA CGGATAAATT TATCGTATGA GATATCTAGT AATTGCCAGA GTTCTTTAAC	7080
TCCAACCGCC ATTCCATCAA CATAGGCTTG AGGTGTAATA CCAGCTTCTT CCGCTTTCTG	7140
CTGGATTTTC TGACCATGTT CATCAAGACC TGTCAGATAA AATACATCGT AGCCCATCAG	7200
GCGTTTGTA CGTGCTAGGA CATCACATGC GATAGTTGTG TAGGCAGAAC CGATATGAAG	7260
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TCCTTTCCAG GCAAATGAAA CCTGTTTTTC TAACACTTCA TTATATCACA TTTTAAATGA	7380
ATTTCAATAG GGAAATCCAT AAAAAACAA GATAGACGAG TGTCATCTT GTTGATCTCA	7440
TTCATAACGA AGGGCTTCAA TTGGATCAAG TTTGATGCC TTGTTGGCTG GCAAGACTCC	7500
AAAAATCATA CCAACACTAG CCGAAACTGC AAGACTAAAT AGGGCGACTG GGATTGATAC	7560
TCCAACCTCT ATACCTTCTA TTAAACCTTG CAGTAACAAA CCTGCTAAG CAGTTAAACC	7620
ACTTGCAATT GTCAAGCCAA TTAAGCCACC TAACAAGGTC AAAATCATGG ATTCAATCAA	7680
AAACTGAATT AAAATATTGG CACGTGTTGC ACCCAAAGCC TTACGAAGAC CAATCTCAG	7740
AGTGCGCTCT GTCACCGAAA CCAGCATGAT GTTCATGACA CCAGTTCCTC CAACAAAGAG	7800
AGAAATCCCT GCGATGGAAC TAATAATCGT CGTCATAAAA CTAAACGATT GTTGAATTTT	7860
TGCAAATACA ACGGACTCAT CTGCCACCTG GTATTCTCCC TGTGTAAGC CTGCAAGCTC	7920

726

TGTCATTTT	CGTGCCAGTT	CTGGACCCAG	AGTTGGGGTT	AAACTGGTAT	CATTCACTCG	7980
AAAGACAATA	TTAGCTATTT	CATCTACATT	AAAATTCGCA	GCAAGGGAGA	TATTGGTAGT	8040
AATAGGCAAG	CCACCAAACC	CATATATTTT	TGATCTTTTA	GCCTCCGGAC	TAGTATAAAC	8100
CCCAATGACC	CGGTAACATA	ATCCATTGAC	TTCTACAACC	TTGTTAATAG	CCTCTTGAGG	8160
AGATTCAAAT	AAACTAATGG	ACAATTCCTC	ATCTAGCAAA	ATGACACTTG	CAAACCTCTT	8220
GAAATCTTGC	TCTCTCAGAC	TACGACCTGC	ATAAATTTC	TTCTTAACAG	CGTCCATGTA	8280
AGTTCTGTTT	CCACCTGTCA	AATTAGCATT	CTCAACCTTT	TTATCTTGAT	AGGTCAAGAT	8340
GGCATTCTGT	GAATTGGTTA	CATAGTAAC	ATCCACTCCC	TTGAGTTTAG	CTGCTCTTGT	8400
GACCCAGGAT	TCTTGCGGTT	TTGGCGGTT	AACAGGAACT	TCCTCTTCCT	TTCCAGAAAC	8460
CGTAAAAGCT	GATTGTTTCT	GAGTAAAAGA	CCCGTCTTTA	CTTTTTTTAG	GAGAGAAAAA	8520
GACGCTAATA	TTTTTCTGAG	ATTTAGTCAT	ATCTTTATPG	ACTTGACGAG	ATAGGGAATC	8580
ACCCAAAGCC	ATAATCACAA	CAACTGATGA	AACACCGATA	ATAATCCCAA	TCATAGTAAG	8640
CAAAGAACC	ATCTGTGTAG	CCATGATAGA	TGAAAAGGCA	AATTCAGAT	TCTGCATCTT	8700
AGTTTCTCTC	CTTCTCTAAC	TGAGCACTGT	CAGACGAAAT	GACCCCATCC	CGAATGACAA	8760
TCTGACGTTT	GGCATAGGCA	GCAATCTCAG	GCTCATGCGT	TACCATGATA	ATGGTTTTTC	8820
CTTCTTTATT	CAATCAACC	AATAATTGCA	TAATTGGTTT	ACCTGTTTTG	GTATCCAAGG	8880
CTCTGTCTGG	TTTATCCGCT	AGGATAATAG	AAGGATTGTT	TACCAAGGCA	CGCGCAATGG	8940
CTACACGTTG	CTTTTGACCA	CCAGATAATT	CTGAAGGTAA	ATGGTGAATA	CGTTCTGTCA	9000
ATTCAACCTT	GTCTAAATAT	TCCTCAGCCA	ACTTGCGACG	TTTGAAGAC	GAAACTCCTG	9060
CGTAAATCAA	GGGCAATTCT	ACATTTTGCA	GAGCATTGAG	CTTCGATAGA	AGAAAGAACT	9120
GCTGAAAGAC	AAAACCGATT	TGTTGGTTAC	GGACCTTAGC	TAGTTGTTTT	TCACCAAGCC	9180
CAGCCACTTC	TTGACCTTCA	AGATAATATT	CTCCACTGGT	TGGTGTATCC	AACATGCCAA	9240
TCGTATTTCAT	CAGAGTGGAC	TTACCAGACC	CAGATGGTCC	CATGATGGCT	ACAAATTAC	9300
CCTCATTCAC	TTCTAGATTG	ATATTTTGA	GAACCTGCAG	TTCTTGGTCA	CCATTACGGT	9360
AACTTCTGAA	GATATTTTTT	AGACTAATTA	GTTGCTTCAT	CAGCCTTCAC	CTCTTTCTCT	9420
TCTTCCAAGG	AAGATGTTGG	ATTACTGATG	ACCTTAGCAC	CGTTCTGTAA	ACCAGAAGTG	9480
ATTTCTTGAT	TTTCTGCGTC	AGCATTTCCC	AATGAAACCT	CAACTTTTTT	AGCCTTTTGT	9540
TGTTTCATCCA	CAATCCAGAC	ATAATTTTGA	CTATCATCCA	TTACTAGACT	GCTAACAGGA	9600
ACAAGAATAG	CCTTAGTTTT	GCTTTTAACC	TCAATGTTGA	CAGAAAAACC	TTGTTTCAAA	9660
TCACCAACCT	CGCCTGTAC	ATCAATAGTA	TAAGGGTATT	TAGAACCTGT	ATTATTTCCG	9720

727

GCTGCTGGAC TAGCTGCTTC ACCATTGTTT TTAGGATAGT CAGAAATATA GCTTAATTTT	9780
CCAGTCCATT TTTTATCAGG ATACACTTTA GAAGTAAAGC TTA CTCTCTTG ACCTACAGAA	9840
AGGTGGGCTA GATTGTACTC AGACAATTCT CCCTTGACTT GTAAATTTTC ATTGCTGACA	9900
ATATGAACCA TAAC TTGACT CGCCCTGTT GGAGATTTAG AAACATTGCT ATTGACTTCG	9960
ACCACAGTTC CCTCTAGGGT ACTGAGAACA GTTGTGTCAT CCAATTGACT TTGAGCCTTG	10020
CTTAATTGCG CCGCAGCATC TGCACGCGCA TCACGGGCAT CACCCAATTG AGCGTCAATA	10080
GAAGCAACAG AATTTCCAGC CACTGGAGTT GGGCTTTGCA CCGTTGCATC TTCTCCTCCT	10140
ACTGGCGCTG GTAAC TGTGG AGCCGGAGCT GAAGCGGCTT CATTTCTGTC TTGATTGAGT	10200
TCATTGATAT GACGATCTGC CCTAGCTACT GCTCGACTAG CTGAATCATA GGCCGCCTGC	10260
GCTTCTGAAC TACTGTACTT GACTAAAGCC TGCCCTTCGC TGACCTTATC GCCCACAGAA	10320
ACAAGGATTT CATCTAAATC ACCCTTACTA GCATCAAAAT AAACATATTG TTCATTTTTT	10380
GCTGTTACTG TCCCTGACAA TAAACAGAG GAGGCCACGC TTCCTTCCTT GGCAACAACA	10440
AGATGAGTAG GCTCATCTTT TAGAGCAGTC TGAGAAGGTT GTCTAAAGAG TAAATCCCC	10500
CCAGCACCCA ATACAACTAC ACTCGCAGCA CCGATTGCTG CATACAGTTG CCACTTTTTA	10560
GCTTTACCAT TCTTTTTCTT CATAATGAAA CTCCTTTTCT TTTTACAAT ACTTTGCTAT	10620
TATACCAAAT TTCCCTCCAG CAAACAATAC AGTTCAGGAT TAAACAATCG TTCGGAATTT	10680
TGCTTTTCGG	10690

(2) INFORMATION FOR SEQ ID NO: 94:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8195 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GAGAAAGCGC CCACGTTTCC CCGAAGGGAG AAAGGCGGAC AGGTATCCGG TAAGCGGCCA	60
GGGTCGGAAC AGGAGAGCGC AACGAGGGAG CTTCCAGGG GGAACGCCT GGTATCTTTA	120
TAGTCCTGTC GGGTTTCGCC ACCTCTGACT TGAGCGTCGA TTTTGTGAT GCTCGTCAGG	180
GGGGCGGAGC CTATGGAAAA ACGCCAGCAA CGCGCCTTT TTACGGTTCC TGGCCTTTTG	240
CTGGCCTTTT GCTCACATGT TCTTTCCTGC GTTATCCCCT GATTCTGTGG ATAACCGTAT	300
TACCGCCTTT GAGTGAGCTG ATACGCTCG CCGCAGCCGA ACGACCGAGC GCAGCGAGTC	360

728

AGTGAGCGAG GAAGCGGAAG AGCGCCCAAT ACGCAAACCG CCTCTCCCCG CGCGTTGGCC	420
GATTCATTAA TGCAGCTGGC ACGACAGGTT TCCCGACTGG AAAGCGGGCA GTGAGCGCAA	480
CGCAATTAAT GTGAGTTAGC TCACTCATTA GGCACCCAG GCTTTACACT TTATGCTTCC	540
GGCTCGTATG TTGTGTGGAA TTGTGAGCGG ATAACAATTT CACACAGGAA ACAGCTATGA	600
CaTGATTACG AATTCGAGCT CGGTACCCGG AAAATCCAGA AAATGCTTGA AAAAAATCCT	660
AGAAGATGGT ATAATACTAA ATTGTAAGGG TTATCACATA TAACTCAAAA AAAGAAAGAA	720
CAAAAGGAGA GTCAAACTAT GGCTTCTAAA GATTTCCACG TAGTGGCAGA AACAGGTATT	780
CACGCACGTC CAGCAACATT GTTGGTACAA ACTGCTAGCA AATTTGCTTC AGATATCACT	840
CTTGAGTACA AAGGTAAATC AGTTAACCTT AAATCAATTA TGGGTGTTAT GAGTCTTGGT	900
GTGCGCCAAG GTGCTGACGT AACTATCTCA GCTGAAGGTG CAGATGCAGA TGACGCTATC	960
GCTGCAATCT CAGAAACAAT GGA AAAAGAA GGATTGGCAT AAGGGAATG ACAGAAATGC	1020
TTAAAGGAAT CGCAGCATCT GACGGTGTG CAGTTGCAA AGCATATCTA CTCGTTTCAGC	1080
CGGATTTGTC ATTTGAGACT ATTACAGTCG AAGATACAAA CGCAGAAGAA GCTCGCCTTG	1140
ATGCCGCTCT ACAGGCATCA CAAGACGAGC TTTCTGTTAT TCGCGAGAAA GCAGTAGGTA	1200
CGCTCGGTGA AGAAGCAGCT CAAGTTTTG ATGCTCACTT AATGGTCTT GCTGACCCAG	1260
AAATGATCAG CCAATCAAG GAACTATCC GTGCGAAGAA AGTGAATGCA GAAGCAGGTC	1320
TGAAGAAGT TACAGATATG TTTATCACTA TCTTTGAAG CATGGAAGAC AACCATACA	1380
TGCAAGAACG CGCAGCGGAT WTCGCGACG TGACAAAACG TGTATTGGCA AACCTTCTTG	1440
GTAAAAAAT GCCAAACCA GCTTCTATCA ATGAAGAAGT GATTTGTGATT GCGCATGACT	1500
TGACTCTTTC AGATACAGCT CAATTGGACA AAAACTTTGT AAAAGCTTTT GTAACCAACA	1560
TTGGTGGACG TACAAGCCAC TCAGCTATCA TGGCACGTAC ACTTGAAAT GCTGCTGTAT	1620
TAGGTACAAA TAACATCACT GAAATCGTTA AAGACGGTGA CATCCTTGCT GTTAACGGGA	1680
TCAGTGAGAG AGTGATTATC AACCAACAG ATGAACAAGC GGCAGAAAT AAAGCAGCTG	1740
GTGAAGCCTA TGCGAACAA AAAGCTGAAT GGGCACTTTT GAAAGATGCT CAAACAGTGA	1800
CTGCTGACGG TAAACACTTC GAGTTGGCTG CTAATATCGG TACTCCAAA GACGTTGAAG	1860
GTGTTAACAA CAACGGTGCA GAAGCTGTTG GACTTTACCG TACAGAGTTC TTGTACATGG	1920
ATTCTCAAGA CTTCCCACT GAAGATGAGC AGTATGAAGC ATACAAGGCT GTTCTTGAAG	1980
GAATGAACGG TAAACCTGTT GTCGTTGTA CAATGGATAT CGGTGGAGAT AAGGAACTTC	2040
CTTACTTCGA TATGCCTCAC GAAATGAACC CATTCCTTGG ATTCCGTGCT CTTGCTATCT	2100
CTATCTCTGA GACTGGAGAT GCTATGTTCC GCACACAAAT CCGTGCTCTT CTTGCTGCGT	2160

CTGTTACCGG TCAATTGCGT ATCATGTTCC CAATGGTTGC GCTCTTGAAA GAATTCCTGT	2220
CAGCGAAAGC AGTCTTTGAT GAAGAAAAAG CAAACCTTCT TGCTGAAGGT GTTGCAGTTG	2280
CGGATAACAT CCAAGTTGGT ATCATGATCG AGATTCCTGC AGCGGCTATG CTTGCAGACC	2340
AATTTGCTAA AGAAGTTGAC TTCTTCTCAA TTGGTACAAA CGACTTGATC CAATATACAA	2400
TGGCAGCAGA CCGTATGAAC GAACAAGTTT CATACCTTTA CCAACCATAC AACCCATCAA	2460
TCCTACGCTT GATTAACAAT GTGATCAAAG CAGCTCACGC TGAAGGTAAA TGGGCTGGTA	2520
TGTGTGGTGA GATGGCTGGT GACCAACAAG CTGTTCCACT TCTTGTCGGA ATGGGCTTGG	2580
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ACACAGCTAA GATGGAAGAG TACGCAAACC GTGCCCTTAC AGAATGCTCA ACAATGGAAG	2700
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CTGCAATTTA GAAATGAATT GCAACTAGAA ATATCAAATA GAAAGAGAGT TTCGATGAAA	3000
ATTAATAAGA AATACCTTGT TGGTCTGCG GCACCTTGAT TTAAAGTGT TGTCTTACG	3060
AGTTGGGACT GTATCAAGCT AGAACGGTTA AGGAAAATAA TCGTGTTCCT TATATAGATG	3120
GAAACAAGC GACGCAAAAA ACGGAGAATT TGACTCCTGA TGAGGTAGC AAGCGTGAAG	3180
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GCGACCACTA TCATTATTAC AATGGTAAGG TTCCTTATGA CGCTATCATC AGTGAAGAAT	3300
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GTGGATATGT TATCAAGGTA GATGGAAAAT ACTATGTTTA CCTTAAGGAT GCTGCCACG	3420
CGGATAACGT CCGTACAAAA GAGGAAATCA ATCGACAAAA ACAAGAGCAT AGTCAACATC	3480
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GCGAGTTGGC TGCTGCAGAA GCCTTCCTAT CTGGTCGAGG AAATCTGTCA AATTCAAGAA	3720
CCTATCGCCG ACAAATAGC GATAACACTT CAAGAACAAA CTGGGTACCT TCTGTAAGCA	3780
ATCCAGGAAC TACAAATACT AACACAAGCA ACAACAGCAA CACTAACAGT CAAGCAAGTC	3840
AAAGTAATGA CATTGATAGT CTCTTGAAAC AGCTCTACAA ACTGCCTTTG AGTCAACGAC	3900

730

ATGTAGAATC TGATGGCCTT GTCTTTGATC CAGCACAAAT CACAAGTCGA ACAGCTAGAG	3960
GTGTTGCAGT GCCACACGGA GATCATTACC ACTTCATCCC TTA CTCTCAA ATGTCTGAAT	4020
TGGAAGAACG AATCGCTCGT ATTATTCCCC TTCGTTATCG TTCAAACCAT TGGGTACCAG	4080
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TACCATCTGA AACTGTTAAA AATCTTGAAA GCAAGTTATC AAAACAAGAG AGTGTTCAC	4320
ACACTTTAAC TGCTAAAAA GAAATGTTG CTCCTCGTGA CCAAGAATTT TATGATAAAG	4380
CATATAATCT GTTAAGTACG GCTCATAAAG CCTTGTTTGA AAATAAGGGT CGTAATCTG	4440
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AGTATACAAC GTCAGATGGT TACATTTTGG ATGAACATGA TATAATCAGT GATGAAGGAG	4680
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CTTGTTTGA TGATCACACA TACAAAGCTC CAAATGGCTA TACCTGGAA GATTGTTTG	5040
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TCAAAGCGGA TGAAGAGCCA GTAGAGGAAA CACCTGCTGA GCCAGAAGTC CCTCAAGTAG	5220
AGACTGAAAA AGTAGAAGCC CAACTCAAAG AAGCAGAAGT TTTGCTTGCG AAAGTAACGG	5280
ATTCTAGTCT GAAAGCCAAT GCAACAGAAA CTCTAGCTGG TTTACGAAAT AATTGACTC	5340
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AAGGAAGTAA TCCTTCATCT GTAAGTAAGG AAAAAATAA CTAATGAAAA ATGAAAGTCT	5460
CGATAAGAG GCTTTCATTT TTATTATGTA TATATGTAAA ATTCTTGACA AGCAATATTA	5520
AAAAGAGTAA ACTATTAAT AGTTAATTAA CCGGTTTATT ACTTTATAGT GAATCAAATA	5580
TACTTAAGAA AAGAGGAAAG AATGAAAATT AATAAAAAAT ATCTAGCAGG TTCAGTGGCA	5640
GTCTTGCCC TAAGTGTGTTG TTCCTATGAA CTGGTCGTC ACCAAGCTGG TCAGGTTAAG	5700

731

AAAGAGTCTA ATCGAGTTkC TTATATAGAT GGTGATCAGG CTGGTCAAAA GGCAGAAAAC	5760
TTGACACCAG ATGAAGTCAG TAAGAGGGAG GGGATCAACG CCGAACAAAT CGTCATCAAG	5820
ATTACGGATC AAGGTTATGT GACCTCTCAT GGAGACCATT ATCATTACTA TAATGGCAAG	5880
GTCCCTTATG ATGCCATCAT CAGTGAAGAG CTCCTCATGA AAGATCCGAA TTATCAGTTG	5940
AAGGATTTCAG ACATTGTCAA TGAAATCAAG GGTGGTTATG TTATCAAGGT AGATGGAAAA	6000
TACTATGTTT ACCTTAAGGA TGCAGCTCAT GCGGATAATA TTCGGACAAA AGAAGAGATT	6060
AAACGTCAGA AGCAGGAACA CAGTCATAAT CACGGGGGTG GTTCTAACGA TCAAGCAGTA	6120
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GATATCATTG AGGACACGGG TGATGCTTAT ATCGTTCCTC ACGGCGACCA TTACCATTAC	6240
ATTCCTAAGA ATGAGTTATC AGCTAGCGAG TTAGCTGCTG CAGAAGCCTA TTGGAATGGG	6300
AAGCAGGGAT CTCGTCCTTC TTCAAGTTCT AGTTATAATG CAAATCCAGC TCAACCAAGA	6360
TTGTCAAGGA ACCACAATCT GACTGTCACT CCAACTTATC ATCAAAATCA AGGGGAAAAC	6420
ATTTCAAGCC TTTTACGTGA ATTGTATGCT AAACCCCTTAT CAGAACGCCA TGTGGAATCT	6480
GATGGCCTTA TTTTCGACCC AGCGCAAATC ACAAGTCGAA CCGCCAGAGG TGTAAGCTGTC	6540
CCTCATGGTA ACCATTACCA CTTTATCCCT TATGAACAAA TGTCTGAATT GGAAAAACGA	6600
ATTGCTCGTA TTATCCCCT TCGTTATCGT TCAAACCATT GGGTACCAGA TTCAAGACCA	6660
GAACAACCAA GTCCACAATC GACTCCGGAA CCTAGTCCAA GTCCGCAACC TGCACCAAAT	6720
CCTCAACCAG CTCCAAGCAA TCCAATTGAT GAGAAATTGG TCAAAGAAGC TGTTCGAAAA	6780
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CATAAGCTAG GAGCTAAGAA AACTGACCTC CCATCTAGTG ATCGAGAATT TTACAATAAG	6960
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GATTTTGAGG CTTTGGATAA CCTGTTGGAA CGACTCAAGG ATGTCyCAAG TGATAAAGTC	7080
AAGTTAGTGG ATGATATTCT TGCCTTCTTA GCTCCGATTC GTCATCCAGA ACGTTTAGGA	7140
AAACCAAATG CGCAAATTAC CTACACTGAT GATGAGATTC AAGTAGCCAA GTTGGCAGGC	7200
AAGTACACAA CAGAAGACGG TTATATCTTT GATCCTCGTG ATATAACCAG TGATGAGGGG	7260
GATGCCTATG TAACTCCACA TATGACCCAT AGCCACTGGA TTAAAAAGA TAGTTTGTCT	7320
GAAGCTGAGA GAGCGGCAGC CCAGGCTTAT GCTAAAGAGA AAGGTTTGAC CCCTCCTTCG	7380
ACAGACCATC AGGATTTCAGG AAATACTGAG GCAAAAGGAG CAGAAGCTAT CTACAACCGC	7440

732

GTGAAAGCAG CTAAGAAGGT GCCACTTGAT CGTATGCCCTT ACAATCTTCA ATATACTGTA	7500
GAAGTCAAAA ACGGTAGTTT AATCATACCT CATTATGACC ATTACCATAA CATCAAATTT	7560
GAGTGGTTTG ACGAAGGCCT TTATGAGGCA CCTAAGGGGT ATACTCTTGA GGATCTTTTG	7620
GCGACTGTCA AGTACTATGT CGAACATCCA AACGAACGTC CGCATTTCAGA TAATGGTTTT	7680
GGTAACGCTA GCGACCATGT TCGTAAAAAT AAGGTAGACC AAGACAGTAA ACCTGATGAA	7740
GATAAGGAAC ATGATGAAGT AAGTGAGCCA ACTCACCTG AATCTGATGA AAAAGAGAAT	7800
CACGCTGGTT TAAATCCTTC AGCAGATAAT CTTTATAAAC CAAGCACTGA TACGGAAGAG	7860
ACAGAGGAAG AAGCTGAAGA TACCACAGAT GAGGCTGAAA TTCCTCAAGT AGAGAATTCT	7920
GTTATTAACG CTAAGATAGC AGATGCGGAG GCCTTGCTAG AAAAAGTAAC AGATCCTAGT	7980
ATTAGACAAA ATGCTATGGA GACATTGACT GGTCTAAAAA GTAGTCTTCT TCTCGGAACG	8040
AAAGATAATA ACACTATTTC AGCAGAAGTA GATAGTCTCT TGGCTTTGTT AAAAGAAAGT	8100
CAACCGGCTC CTATACAGTA GTAAAATGAA TGGAGCATAT TTTATGGAGA AGTAACCTTT	8160
CGTGTTACTT CTCTTTTTTA GAAAAACGTA ACAGA	8195

(2) INFORMATION FOR SEQ ID NO: 95:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2004 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

TTTACTAAAA GGAAGAAAGA ACTGATTTCT CAGTCCTTCA TTAATCTTAT TCCACACTAA	60
ATAGGTATGG GTAAACAGGT TGTGACCTT GGTGAATCTC GACTTCAACG TCTTCGAATT	120
CTTCTACGAT TTCTTGAGCG ATTTTCATTGG CAAGTCTTTC GCTTCCGTCT TCACCTACAT	180
AGAAGGTTAC GATTTCACTG TCTTCATCCA ACATATGTTT CAAGGTTTCA GTCAATGT TT	240
GGTGCATATC AGGGTTTGAC ACAAGAATTT TTCCATCCAC CATACCTAAA TTATCGTTTT	300
CATGGATTTC TAAGCCATCG ATCGTTGTAT CACGCACGGC TGTGTGACG CTTCGCTAA	360
CGACATCGCT AAGAGCAGCT GTCATACGCT CTTGGTTTTT TCAATGGAC TTGCTTGGAT	420
CAAAGGCAAG AAGACTTGTC ATACCTTGAG GAAGAGTGCG AGCCTCTACC ACTACCGCTG	480
GTTGCTCCAA AACTTCTGCC GCAGATTGAG CTGCCATGAA GATGTTCTTG TTGTTTGGCA	540
AGAAGATGAT GTTACGGGCA TTAACCTGTT CAACAGCCTT GATAAAGTCT TCTGTTGAAG	600
GGTTCATGGT TTGACCGCCT TCGATAACAT AATCCACGCC TTGAGAACAG AAGATATCTG	660

733

CTAGACCTTT ACCAGCCACC ACAGCAATCA AAGCATACTC TTTTCTTCA GCCGACTTGA	720
TAACCTTGAGT AGCTTCTTTC TCAACCTGTG CTTCTGTGTG GTTACGCATA TTGTCAACTT	780
TTACCTTGAC CAAGCTACCA TATTTGAGAC CTTCTTGCAT AACAAAGTCCT GGATCTTCTG	840
TATGAACATG GACTTTGACA ATTTTCATCAT CGTTAACAAC AAGGAGAGAA TCTCCAAGCT	900
CATCCAAGTA GTTACGGAAT TCATCGTAGT CAAAATCTTT AGCATAGGTT GGACCTTGCT	960
TAAGAGCTAC CATGATTTC GTACAGTAAC CAAACGTGAT GTCCTCAGTC GCTACGTGAC	1020
CAGCTACAGA CTTATGATGC TCTACATTGA TCATCTCACT CATGTTGGCA GGAGTCGCTA	1080
CAAAGTCCTC AGATGCAATA TATTCGCCAG TAAGGGCTGA AAGGAAACCT TCGTAGATGA	1140
AGACCAATCC TTGACCACCT GAGTCCACAA CGCCAACTTC TTTCAATACT GGAAGCATGT	1200
CTGGTGTTTT AGCTAGAGCT GTTTTAGCAC CTTCCAAGGC TGC GCGCATG ACTTCAACAG	1260
CGTCATCTGT TTGCTCAGCT TTTTCTTAG CACCGATAGC AGCTCCACGA GAAACTGTTA	1320
AAATCGTTC TTCAACAGGT TTCATCACTG CTTTATAGGC AACTTCCACA CCTGATTGGA	1380
AGGCCAGAGC CAAGTCTTGA CCTGTAACT CGTCTTATC CTTGATAGCT TGGGAAAATC	1440
CACGGAAG CTGAGACGTA ATCACTCCTG AGTTCACG CGCACCCATC AAAAGCCCTT	1500
TGGCAAGAAT GCTCGCTACT TCTCCAAGT TAGAAGCTGG CTGTCTGCA ACTTCTTAG	1560
CACCATTTTC AATGGTCATT CCCATATTTG TCCCAGTATC TCCATCTGGA ACTGGAAAGA	1620
CGTTTAATGA ATTGACATAT TCAGCTTGCT TATTCAAGCG AGTTGATGCA GCCTGCACCA	1680
TTTCTTGAAA TAAGCTAGTA GTAATTTTG ACACGTTAT TCTCCTACAA CTTTGATATT	1740
TTGAATGTAG ACATTTACAG TCTGAGCAGT AATTCCAAGC TGGTTTTCCTA AGCTAAAGGC	1800
AACACGCTCT TGAATGTTTT TTGACACTTC ACTAATCTTT GTTCCGTAGC TTAACACGGT	1860
ATATACATCA ACTGCAATAC TGCCATCTTC GGCTGCCTTT ACGACGACAC CTTTAGAATA	1920
ATTTTCCTTA CCTAGCAGGG CTTGGAAATT ATCTTTGAGG GCATTTTAC TAGCCATACC	1980
GACCACACCA GAAATCTCAG TTGC	2004

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

734

CCGGGTTGGG CTGTTCCGCC ATTAAAGCGG CACCACAGCT GGGTTCAGAA CGTCGTGAGA	60
CAGTTCGGTC CCTATCCGTC GCGGGCGTAG GAAATTTGAG AGGATCTGCT CCTAGTACGA	120
GAGGACCAGA GTGGACTTAC CGCTGGTGTA CCAGTTGTCT TGCCAAAGGC ATCGCTGGGT	180
AGCTATGTAG GGAAGGGATA AACGCTGAAA GCATCTAAGT GTGAAACCCA CCTCAAGATG	240
AGATTTCCCA TGATTATATA TCAGTAAGAG CCCTGAGAGA TGATCAGGTA GATAGGTTAG	300
AAGTGGAAAGT GTGGCGACAC ATGTAGCGGA CTAATACTAA TAGCTCGAGG ACTTATCCAA	360
AGTAAGTGTAG AATATGAAAG CGAACGGTTT TCTTAAATG AATAGATATT CAATTTTGAG	420
TAGGTATTAC TCAGAGTTAA GTGACGATAG CCTAGGAGAT ACACCTGTAC CCATGCCGAA	480
CACAGAAGTT AAGCCCTAGA ACGCCGGAAG TAGTTGGGGG TTGCCCCCTG TGAGATAGGG	540
AAGTCGCTTA GCTCTAGGGA GTTTAGCTCA GCTGGGAGAG CATCTGCCTT ACAAGCAGAG	600
GGTCAGCGGT TCGATCCCGT TAACTCCCAT TTTAGCGGGT GTAGTTTAGT GGTAAACTA	660
CAGCCTTCCA AGCTGTTGTC GCGAGTTCGA TTCTCGTCAC CCGCTTTGAA CTTTGTCTCT	720
TGTACCAAGT TTTTGACTTG GGCGCGTAGC TCAGGTGGTT AGAGCGCAGC CCTGATAAGC	780
GTGAGGTCGG TGGTTCGAGT CCACTCGTGC CCATAGTGTT TAGTCCATTA CTAGGGGATT	840
GGAATATTAT CTGTTCACTA AGAGGACACG GGCTTGTTCC CGTATAAACT ATTTTGGAGG	900
ATTACCCAAG TCCGGCTGAA GGAACGGTC TTGAAAACCG TCAGGCGTGT AAAAGCGTGC	960
GTGGGTTCGA ATCCACATC CTCCTTTTAT ATTAACGCGG GATGGAGCAG CTCGGTAGCT	1020
CGTCGGGCTC ATAACCCGAA GGTCTAGGT TCAAATCCTG CTCCCGCAAT AAGGCTCGGT	1080
AGCTCAGTGT GTAGAGCAAT GGATTGAAGC TCCATGTGTC GCGGTTTCGA TTCCGTCTCG	1140
CGCCATTTAT ATATTTTGA AGGGTAGCGA AGAGGCTAAA CGCGGCGGAC TGTAAATCCG	1200
CTCCTTCGGG TTCGGGGGTT CGAATCCCTC CCCTTCCAAT TTACGGGCAT AGTTTAAAGG	1260
TAGAACTAAG GTCTCCAAAA CCTTCAGTGT GGGTTCAATT CCTACTGCCC GTGTTAATAG	1320
AATTATGGCG GGTGTGGTGA AGTGGTTAAC ACACCAGATT GTGGCTCTGG CATGCGTGGG	1380
TTGATCCCC ATCACTCGCC TATTTTATAT TGGGTATAG CCAAGCGTA AGGCAAGGGA	1440
CTTTGACTCC CTCATGCGTT GGTTCGAATC CAGCTACCCC AGTTACTATT TGCCGGCGTG	1500
GCGGAATTGG CAGACGCGCT GGAATCAAAA TCCAGTGTCC GCAAGGACGT GCCGGTTCGA	1560
CCCCGGCCGC CGGTATAGTA TAGTGTTAGG AACGTTGTAA TTCTTCGTTT CTTTTTATA	1620
TTATTTTGG TATAATTATA GTTATTCAA TTTTATTTAG ATTAAGAAAG TGAGGGGAG	1680
TATGTCTTGT TCTATCGATT TATTAAACA TCGGTATTTG AAAAAATTA AAGAAAATCC	1740
TGAATTGTTT GTCGGAATTG AGTTGGAGTA TCCTGTTGCA AGTTTAGAAG GGGATGCTAC	1800

735

AGATGTTGAA GTTATGAAGG ATCTATTTCA TTATTTAGTT TCTACTTTGG ATCTCACCGT	1860
AGCAAAGGTA GATGATTTTG GCAATCTGAT CCAGTTAGTA GATCCGATAA GTCAGGATGC	1920
TATTTTATTT GAAGTTTCCT ATACAACGAT TGAGTTTGCA TTTGGTAAGG CTGAAACGAT	1980
TCAAGAGGTC GAAAATCGTT TCAATAATTA TATGAATGTA ATTCAGAGAA AGTTAGCTGA	2040
ATCAAATCAT GCTATTGTTG GCTGTGGTAT CCATCCCAAC TGGGATAAAA ATGAGAATTG	2100
TCCAGTGGCT TATCCACGCT ATCAGATGTT GATGGATTAT TTGAATTTGA GTAGAAATAT	2160
TATTAAATCA GATTTACATC ATTTCCCTGA ATATGGTACT TTTATCTGTG GGAGCCAGGT	2220
TCAGCTGGAT ATTTCAAAAA CCACTACTT ACGGGTGATT AATGCTTTTA CTCAAATTGA	2280
AGCGGCTAAG GCTTATTTAT TTGCAAACTC TGAATTTTCG GGTGCGGATT GGGATACGAA	2340
AATTTCAAGG GATATTTTCT GGGAAAGATC TATGCATGGT ATCTATCCAG AGAATGTTGG	2400
GGTCAATGCT AGACTCCTTA ATGATGAAAC TGATTTTTTT GACTATCTAA ATCATTCCTGC	2460
GATTTTTACT GCGGAACGTG ATGGGCAGAC CTATTATTTT TATCCTATTC AGGCTGGGGA	2520
CTATTTGGCT ACGTCCGAAA TCCAAGCATT TGCTCTGAAT GGGGATGAGG TTATTATTTA	2580
CCCCCAAGAG AAGGATTTTG AAATCATCG TAGTTACCAG TACCAAGATT TAACGACTCG	2640
AGGAACAGTT GAGTTTCGTA GTGTGTGTAC ACAGCCACTT GATAGGACTT TTGCTTCTGC	2700
AGCTTTTCAC TTGGGATTAT TGGTTAATTT AGACAAGTTA GAAGCTTACT TAGAAACAGC	2760
ACCTTTCTTT AAAGTATTTG GTTATGATTA CAAGTCTTTA AGGAGACAAT TTTCTAAGAA	2820
AAATCTTACA GATGAGGAAG AAATACGAT TATTGAATTT TCCAAAGACT TACTCCTACT	2880
AGCTGAGGAG GGAAGTGTG TGAGAAATAA GGAAGAAATG ACCTATTTAC AGCCTTTGAG	2940
AGAAGAATTG AGCCTATAAT TTCTCTTATA AAGGGAGAAT TTTCTGAAAA ATCATGATAT	3000
AATGGACGAG ACTATAGATA AAGGATAGAG AGTAATGACA TTAGTTTATC AATCAACGCG	3060
TGATGCCAAC AATACAGTAA CTGCCAGCCA AGCAATTTTG CAAGGTTTGG CGACGGACGG	3120
CGGTTTGT TT ACACCGGATA CTTATCCAAA GGTAGATTTG AACTTTGACA AATTGAAAGA	3180
TGCTTCTTAC CAGGAAGTTG CTAAGCTAGT TTTGTCAGCA TTTTATAGAT ACTTTACAGT	3240
TGAGGAGTTG GACTACTGTA TCAACAATGC CTACGATAGC AAATTTGATA CTCCAGCTAT	3300
TGCACCATTA GTGAAATTAG ATGGGCAATA CAATTTGGAA CTTTCCATG GTTCAACGAT	3360
TGCCTTTAAG GATATGGCCT TGTCTATTTT GCCATACTTT ATGACGACTG CTGCTAAGAA	3420
ACATGGTTTG GAGAACAAGA TTGTTATCTT GACAGCGACA TCTGGTGACA CGGGGAAAGC	3480
TGCTATGGCG GGGTTTGCGA ATGTGCCTGG TACTGAGATT ATCGTCTTTT ATCCAAAGGA	3540

736

TGGTGTGAGC AAGATTCAAG AGTTACAAAT GACCACTCAG ACTGGCGACA ATACTCATGT	3600
TATTGCTATT GATGGTAACT TTGACGATGC GCAAACAAAT GTGAAGCACA TGTTTAACGA	3660
CGTGGCTCTT CGTGAAAAAT TGACTIONCAA CAAGTTGCAA TTTTCATCAG CTAACCTCTAT	3720
GAACATTGGT CGTCTGGTGC CACAAATTGT TTATTATGTT TATGCTTACG CTCGAATTGGT	3780
TAAGACTGGT GAAATTGTAG CTGGTGAAAA GGTAACTTC ACAGTACCAA CAGGAACTT	3840
TGGAATATC TTGGCTGCCT TTTATGCCAA ACAAATTGGT TTGCCAGTTG GTAAATTAAT	3900
CTGTGCTTCA AATGACAACA ATGTTTTGAC AGACTTCTTT AAAACACGTG TCTATGACAA	3960
AAAACGTGAG TTTAAGGTAA CAACCAGCCC ATCTATGGAT ATCTTGGTAT CTTCAAACCTT	4020
GGAGCGCTTG ATTTTCCATC TTTTGGGAAA TAATGCTGAA AAGACAACCTG AACTTATGAA	4080
TGCTTTGAAC ACGCAAGGAC AATATAAGTT GACAGACTTT GATGCAGAGA TTTTGGACCT	4140
CTTTGCAGCT GAATATGCGA CTGAGGAAGA AACGGCAGCA GAGATCAAGC GTGTTTGTGA	4200
GTTAGATTCT TATATCGAGG ACCCTCATAC AGCTGTTGCT TCAGCAGTTT ATAAAAATA	4260
CCATTCGGCC ACTGGAGATG TAACTAAGAC AGTGATTGCT TCAACAGCTA GTCCATACAA	4320
GTTCCAGTA GTTGCACTAG AAGCTGTAAC TGGAAAAGCA GGTTTAACAG ACTTTGAAGC	4380
CTTGGCTCAA TTACATGAAA TCTCAGGCGT TGCAGTGCCA CCAGCAGTTG ATGGGCTTGA	4440
AATAGCTCCA ATTCGTACA AGACAACAGT GGCAGCTGCT GACATGCAAG CAGCGGTGA	4500
GGCTTATTTA GGACTIONTAA ACAGAGGGAG CAAACTCGGT TGGGAAACCA ACTGAGTTTC	4560
TTTTCATCAG GAGGAGAGAT GTTTTAAGAA AAATAAAGAC ATTCTTAATA TTGCATTGCC	4620
AGCTATGGGT GAAAACCTTT TGCAGATGCT AATGGGAATG GTGGACAGTT ATTTGGTTGC	4680
TCATTTAGGA TTGATAGCTA TTTCAGGGGT TTCAGTAGCT GGTAAATATTA TCACCATTTA	4740
TCAGGCGATT TTCATCGCTC TGGGAGCTGC TATTTCCAGT GTTATTTCAA AAAGCATAGG	4800
GCAGAAAGAC CAGTCGAAGT TGGCCTATCA GTGACTGAG GCGTTGAAGA TTACCTTACT	4860
ATTAAGTTTC CTTTTAGGAT TTTTGTCCAT CTTGCTGGG AAAGAGATGA TAGGACTTTT	4920
GGGACGGAG AGGGATGTAG CTGAGAGTGG TGGACTGTAT CTATCTTTGG TAGGCGGATC	4980
GATTGTTCTC TTAGGTTTAA TGACTIONTCT AGGAGCCTTG ATTCGTGCAA CGCATAATCC	5040
ACGCTGCGCT CTCTATGTTA GTTTTTTATC CAATGCCTTG AATATTCTTT TTTCAAGTCT	5100
AGCTATTTTT GTTCTGGATA TGGGGATAGC TGGTGTGCT TGGGGGACAA TTGTGTCTCG	5160
TTTGGTTGGT CTTGTGATTT TGTGGTCACA ATTAAAACTG CCTTATGGGA AGCCAACTTT	5220
TGGTTTAGAT AAGGAACGTG TGACCTTGGC TTTACCAGCA GCTGGAGAGC GACTTATGAT	5280
GAGGGCTGGA GATGTAGTGA TCATTGCCTT GGTGTTTTCT TTTGGGACGG AGGCAGTTGC	5340

737

TGGGAATGCA ATCGGAGAAG TCTTGACCCA GTTTAACTAT ATGCCTGCCT TTGGCGTCGC	5400
TACGGCAACG GTCATGCTGT TGGCCCGAGC AGTTGGAGAG GATGATTGGA AAAGAGTTGC	5460
TAGTTTGAGT AAACAAACCT TTTGGCTTTC TCTGTTCCTC ATGTTGCCCC TGTCCTTTAG	5520
TATATATGTC TTGGGTGTAC CATTAACCTCA TCTCTATACG ACTGATTCTC TAGCGGTGGA	5580
GGCTAGTGTT CTAGTGACAC TGTTTTCACT ACTTGGGACC CCTATGACGA CAGGAACAGT	5640
CATCTATACG GCAGTCTGGC AGGGATTAGG AAATGCACGC CTCCTTTTIT ATGCGACAAG	5700
TATAGGAATG TGGTGTATCC GCATTGGGAC AGGATATCTG ATGGGGATTG TGCTTGGTTG	5760
GGGCTTGCCT GGTATTTGGG CAGGGTCTCT CTTGGATAAT GGTTTTCGCT GGTATTCTCT	5820
ACGCTATCGT TACCAGCGCT ATATGAGCTT GAAAGGATAG GAAATGCAAA AAACAGCTTT	5880
TATTTGGGAT TTAGACGGGA CTTTATTGGA CTCTTACGAA GCGATTTTAT CAGGGATTGA	5940
GGAGACTTTT GCTCAGTTT CTATTCCTTA TGATAAGGAG AAGGTGAGAG AGTTTATCTT	6000
CAAGTATTCG GTGCAAGATT TGCTTGTGCG GGTGGCAGAA GATAGAAATC TGGATGTTGA	6060
GGTGCTAAAT CAGGTGCGTG CCCAGAGTCT GGCTGAGAAG AATGCTCAGG TAGTTTGTAT	6120
GCCAGGTGCG CGTGAGGTGC TAGCTTGGGC AGACGAATCA GGAATTCAGC AGTTTATATA	6180
TACTCATAAG GGAACAACG CTTTACCATT TCTCAAGGAC TTGGGGTGG AATCCTATTT	6240
TACAGAGATT TTAACCAGTC AGAGTGGCTT TGTGCGGAAG CCAAGTCCAG AAGCGGCTAC	6300
CTATCTGCTA GATAAGTATC AGTTGAATTC TGATAATACT TATTATATAG GGGATCGGAC	6360
TCTGGATGTG GAATTTGCCC AGAATAGTGG GATTCAAAGC ATCAACTTTT TAGAGTCTAC	6420
TTATGAAGGG AATCACAGGA TTCAAGCGTT AGCAGATATT TCCCGTATTT TTGAGACTAA	6480
GTGATAAAAA GATTGTGTCA GTTTTGTGAC AGAGACCTAA CAAACTATTT CAAGTAACCT	6540
AGTTTGTAC AAGGAATAGA CAGTTCTGTT AAATAGGCCC GAGAGGGCTT TTTTCTACA	6600
TTTTTTGTGT TATGATAGAC AGGTACTCAT TTGAAAGGAA TTTGAAAGAA TGAAGAAAAG	6660
AATGTTATTA GCGTCAACAG TAGCCTTGTC ATTTGCCCCA GTATTGGCAA CTCAAGCAGA	6720
AGAAGTTCTT TGGACTGCAC GTAGTGTGTA GCAAATCCAA AACGATTTGA CTAAAACGGA	6780
CAACAAAACA AGTTATACCG TACAGTATGG TGATACTTTG AGCACCATTG CAGAAGCCTT	6840
GGGTGTAGAT GTCACAGTGC TTGCGAATCT GAACAAAATC ACTAATATGG ACTTGATTTT	6900
CCCAGAAACT GTTTTGACAA CCACTGTCAA TGAAGCAGAA GAAGTAACAG AAGTTGAAAT	6960
CCAACACCT CAAGCAGACT CTAGTGAAGA AGTGACAACT GCGACAGCAG ATTTGACCAC	7020
TAATCAAGTG ACCGTTGATG ATCAAATGT TCAGGTTGCA GACCTTTCTC AACCAATTGC	7080

738

AGAAGTTACA AAGACAGTGA TTGCTTCTGA AGAAGTGGCA CCATCTACGG GCACTTCTGT	7140
CCCAGAGGAG CAAACGACCG AAACAACCTCG CCCAGTTGAA GAAGCAACTC CTCAGGAAAC	7200
GACTCCAGCT GAGAAGCAGG AAACACAAGC AAGCCCTCAA GCTGCATCAG CAGTGGAAGT	7260
AACTACAACA AGTTCAGAAG CAAAAGAAGT AGCATCATCA AATGGAGCTA CAGCAGCAGT	7320
TTCTACTTAT CAACCAGAAG AGACGAAAAT AATTTCACA ACTTACGAGG CTCCAGCTGC	7380
GCCCATTAT GCTGGACTTG CAGTAGCAAA ATCTGAAAAT GCAGGTCTTC AACCACAAAC	7440
AGCTGCCTTT AAAGAAGAAA TTGCTAACTT GTTGGCATT ACATCCTTTA GTGGTTATCG	7500
TCCAGGAGAC AGTGGAGATC ACGGAAAAGG TTTGGCTATC GACTTTATGG TACCAGAACG	7560
TTCAGAATTA GGGGATAAGA TTGCGGAATA TGCTATTCAA AATATGGCCA GCCGTGGCAT	7620
TAGTTACATC ATCTGGAAAC AACGTTTCTA TGCTCCATTC GATAGCAAAT ATGGGCCAGC	7680
TAACACTTGG AACCCAATGC CAGACCGTGG TAGTGTGACA GAAAATCACT ATGATCACGT	7740
TCACGTTTCA ATGAATGGAT AAACCCGACT TGATAACATC ATTTTGACGA ATGAGATCTA	7800
GCTTTCGTGA TGGAAAGCGA TTCTCGTTCG TTTTCTCTTT GTCATACTCT TCGAAAATCT	7860
CTTCAAACCA CGTCAGTTTT ATCTGAAACT TCAAAGCTGT GCTTTGAGCA ACCTGCGACT	7920
AGCTTCCTAG TTTGCTTTTT GATTTTCATT GAGTATCAAT TTGAATGGAA AATGGAAAGT	7980
TATCATCTTG TAATGAGTTA AGCAACATTC TTGCAATCTA TTTTACTTTA TATCACAATT	8040
AATTAGTCAA ATATTGATAA ATCAATAAAA AGAGAGGGGA AGAAATGCTA GAGATTCAAG	8100
ATTTACTGTA TCAACTCCGC TTGTCTGAGC AAGCGAGTAC GCAATTGTTT GAAAAAAGGC	8160
TTGGGATTAG TTTGACACGG TATCAGATTT TACTGTTTTT GCTGGAGCAT TCTCCTTGTA	8220
ACCAAAATGGC GGTTCAGGAG CGTTTGAAAA TTGATCAGGC TGCTTTGACA CGGCATTTCA	8280
AAATTTTGA AACGGAAGGT TTGGTGGAGC GTCATCGTAA TCCTGAAAAT CAGCGGGAAG	8340
TGTTGGTAGA GGCTGCGAAG TATGCCAAGG AGCAGTTAGT GGTGAATCCC CCTCTGCAAC	8400
ATATCAGGGT TAAGGAAGAG ATAGAAAGTA TCTTAACAGA GTTTGAGAGA ACAGAACTCA	8460
GCCGTTTATT AAATAAATTG GTTTTGGGTA TTGAAAATAT AGAAATTTAA GGAGAAATAG	8520
ATGTCAATTA TTTTAACAAC GATCGTTGCT TTGGAGCATT TTTACATTTT TTATTGGAA	8580
AGTATTGCCA CGCAATCAGA TGCGACTAGT CGTGATTTTA ATATGGAAAA GGAAGAATTG	8640
GCTCATCCGT CAGTAAGTTC ATTGTTCAAA AATCAAGGAA TTTATAAGGC TCTGCTAGGA	8700
GTCTTCTCT TGTATGTCAT TTATTTCTCA CAGAATTTAG AAATTGTGAC TATTTTGTGTC	8760
TTATTTGTGA TTGGTGCTGC GACTTACGGC TCTTTAACAG CGGATAAAAA AATTATTTTG	8820
AAACAAGGTG GATCAGCTAT TTTGGCCTTG ATTAGTATTT TACTCTTTAA ATACACTTGA	8880

739

AGGTCGATTC TAATCTCGCT AATCCTTTTT AATCCAGAAT AAGGGAAATA TGTTATACTT	8940
GTTTTTAAGA AAAAAGTCTC ATTGAATTGG TTTTGAGGAG TTAGAAATGA AAGTATTAGT	9000
GACAGGTTTT GAGCCCTTTG GAGGGGAAAA GGGCAATCCA GCTTTGGAGG CCATTAAAGG	9060
TTTACCAGCT GAAATCCATG GTGCTGAGGT CCGTTGGCTA GAGGTGCCGA CAGTTTTTCA	9120
CAAATCTGCT CAAGTATTGG AAGAAGAGAT GAATCGTTAT CAACCTGACT TTGTCCTTTG	9180
TATTGGGCAA GCTGGTGGA GAACTAGTTT GACACCTGAA CGAGTGACCA TTAATCAAGA	9240
CGATGCATGC ATTTCTGATA ACGAAGATAA TCAACCGATT GACCGTCCCA TTCGCCAGA	9300
TGCTGCTTCG GCCTACTTTA GTAGTTTGCC GATTAAAGCG ATGGTTCAAG CTATAAAAAA	9360
AGAGGGCTTA CCGGCCTCTG TTTCCAATAC GGCAGGGACT TTTGTCTGCA GCCATTTGAT	9420
GTATCAGGCT CTCTATTTGG TAGAAAAGAA ATCTCCATAT GTTAAGGCAG GTTTTATGCA	9480
TATTCCTTAT ATGATGGAAC AGGTGGTGAA CAGACCGACT ACTCCAGCTA TGAGTTTAGT	9540
GGATATTCGG CGAGGGATAG AAGCAGCAAT CCGCGCTATA ATAGAACATG GAGATCAGGA	9600
ACTCAAGTTG GTAGGCGGAG AAATCATTG ATAGAAAAA GCTTGAGGGG AAAAACCTTC	9660
AAGCTTTTGG ACGTTTTCGG GCCAATACTG CTCGGTAAAA CATAATTTTA GTGCATTGGA	9720
TATAAGGTAG GAGTGAAAAA CTAGCAATGC CAAAGGTAAT CCAATTGAGG AAGTACCAAG	9780
GAAGAAGCTG TAAATCTAGG ACAAAGTGCT GGAACTTGTA GCCCTTCATA AAGGAACGGC	9840
TAGTTTTTAG GATTCTCTT GGTGGGACCT GTCCTAGGTC TAGACTATAA CAGAGAAGAA	9900
ATTCCACCTG TGAATAGGCA TAATACTGTG GAATATAGAG GATATTCCT ACAATGATCA	9960
AGATGAGACT TGCAAGAAAG TAGAGTCCAA AGACCATGAG GAAACGCTCG GTTTCAACTG	10020
ATGAGAGATC TAGATTTGGA AACTCAGGAT GTAGGGTGAC GAATTTTTTG GCTAAAAAGC	10080
TACTATAAAA GAGGAGGTAA ATCCCAAGTA AATTAGGGAT ACTCCATAAA AAGAGATAGA	10140
AACGTTTGAG AAGTAGGGTC AAAAAGGTTT GAGAAAAGCG CTCCTCATCA AAGAGAGCTA	10200
GGCTGTTTTT TACAGATGGC TCCGTTTGTG AATCTTTCAT GAGTGTCAGT GTTGCATAGA	10260
CGGAACCTGG CAAAAGAATA GTCCCGATAA AGGAGACTAG TAGAGGAAAG AGGTAGGTTT	10320
GAAGTATTTG GCCAAGTATG CTGAAAAATG GCTGTTCTAA AACAGTCCCG TGGATCCGAG	10380
ATAAGGGATT AAGAAAACCA GATAAGATGA CCAGCATACT GGAAGGATA TAGAGGAGAA	10440
AGAGACGGGG GGTGTCAGCC TGAAAATGTT TTGACTCCTG ACGAATTGTT TTAAATCAA	10500
TTTTTGATA GTTCATTCTC TTATTATACC ATAGTTCTTA TACATAGTTC GTGACAGTTC	10560
CTACTTTTTT TGATAAAATC ATACAGTGTG TCCTTGGGCA CACTGTATGA ACTGGGACTG	10620

740

TCTTTCCCAG CTTCGGAGGT AAAAAATGTC AGATTACCA ATCAAATATC GTTTGATTAA	10680
GAAAGAAAAA CACACAGGAG CTCGTCTGGG AGAAATCATC ACTCCCCACG GTACCTTTCC	10740
GACACCTATG TTTATGCCAG TTGGGACACA AGCCACTGTC AAAACTCAGT CACCTGAAGA	10800
ATTGAAGGAG ATGGGTTCGG GAATTATCCT ATCAAACACC TATCATCTCT GGCTTCGCCC	10860
TGGAGATGAA CTCATTGCAC GCGCTGGTGG TCTCCACAAG TTCATGAAT GGGACCAGCC	10920
TATCTTGACA GATAGTGGTG GTTTTCAGGT TTATTCTTTA GCAGATAGCC GTAATATCAC	10980
AGAAGAAGGA GTAACCTTTA AAAATCATCT AAATGGTTCT AAGATGTTCC TATCCCCAGA	11040
AAAAGCCATC TCTATTCAGA ATAATCTGGG TTCAGACATC ATGATGTCCT TTGATGAATG	11100
TCCTCAGTTT TATCAACCTT ATGACTACGT TAAGAAATCG ATCGAGCGTA CCAGCCGTTG	11160
GGCTGAGCGT GGTTTGAAG CTCACCGTCG TCCACATGAC CAAGGTTTGT TTGGAATTGT	11220
GCAAGTGCA GGATTGAAG ACCTTCGCCG CCAATCAGCT CATGATCTTG TCAGCATGGA	11280
TTTCTCAGGC TACTCTATCG GTGGTTTGGC AGTGGGAGAA ACCCATGAAG AGATGAATGC	11340
GGTCTTGGAC TTTACAACTC AACTGCTGCC TGAAAATAAA CCTCGTTATC TGATGGGTGT	11400
GGGAGCGCCA GATAGCTTGA TCGATGGGGT CATTCGTGGG GTGGATATGT TTGACTGTGT	11460
CTTACCGACT CGAATTGCTC GTAACGGGAC TTGTATGACC AGTCAAGGAC GTTTGGTTGT	11520
GAAAAATGCC CAGTTTGCTG AGGACTTTAC GCCACTGGAT CCTGAGTGTG ATTGCTACAC	11580
ATGTAATAAC TATACACGCG CTTACCTTCG TCACCTGCTC AAGGCTGATG AAACCTTTGG	11640
TATCCGCTTG ACTAGCTACC ACAATCTTTA CTTCTTGCTT AACCTGATGA AGCAAGTGCG	11700
ACAAGCCATC ATGGATGACA ATCTCTTGA ATTCCGTGAG TATTTTGTGG AAAAAATATG	11760
CTATAATAAG TCAGGACGTA ATTTCTAAAA TGGAATTGAT ATAAAAAAT CCTAAGTTT	11820
CTCTTAGGAT TTTTCTTCTT TTTTGATAG AATAAAGTGT ACAATGAAAG GAAGAATAAA	11880
CTCGTATGCG CATTAAATGG TTTTCCTCGA TTAGG	11915

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9069 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

GAGAGGGCAA CAGTTCTATC GCTTCAAATT TTTTCTTGGT TTGCAGATAT TCAAGAATCG	60
GGAGTTTTTC TATAGTATTC GGCAGATTTA TTACAGCCAA GCATCTCAAA AATACGGACA	120

741

GCATCCTCCA TCTTTTCTG GCCTTCCTTG ACTCTACCTT GCTTGCTATC AAGGAGACCT	180
TCTGCCACACA GATAACAAT TCGGAAATAG GTCTCATTTT CCTTGTAGAA ATGCTCTTCG	240
ATAACACGTT TAAAAATAA GGCATTGGTA AATTCTTCAC ACTCAATACT AGCTAAAAAG	300
CCATTCAATA GTATAGTATG AAAAAGGTTT CGATTGCCAG ACATTTCAT TAGAAAATCA	360
GATTTACGTA CCATTTCTCG TACATATCTA GTAAAAAGAG AAACAGATAA AAATGGAGAA	420
CTGACTGAAA ATAAATTGAG TTCATAGATT CCCAGATCT CGGTAGAAAA CAAATAATCA	480
TGAAGGACTT TTCCTTCCTC TGCTGTTAAG TCTACCTTT CATCTATGCT CTTTCATATA	540
GACTTGATAA TAATGGCATT TAGAATATGT TTCTGTTTGT TGTGAGAATG GGCATGCTTT	600
TATACTCCCT GCGATATAAG TCCTCAAGAG GTGCTATATT CTTTGGTTCC AAGACATCTG	660
TAATTTCTTT TCTCAACTCA GAATCTGTAT CATACTGGAA ACCTCTTGCC AGAAAGAGGA	720
TCTCTCCAC ACTGGCAGAT ATATTTTCCA GAGCAAATAG AAACTTTCC ACCGAAAGCT	780
CACTCTGACC TGTTTCAAAA CGGGACAACA TAGACGGCGA AAATTGTCCT CCGGTGCTT	840
GTCTCAGTA GATATTTCTT GACTCTCGTA ATTGTCTAAA GACTTTTCCA ATCTGCTCCA	900
TAGACTTCCC CTTGATTCCG TATTTTCTTC ATTTTATCAT ATTTTTCAGA AAATTCATCA	960
AAAACCTGCC AAATGTGAG AATTATGAGA AAATAGAGGA TATTTATCAC GTGGAGGGAC	1020
TGCTATGAGA GACGATATCA AAATCAATGA CCGTGCTTTG GCCTTGCAAG ACCAAATTAT	1080
CGAAAACTA GAGAAAGTTT TTGATACAGA TGTGGAATG GATGTTTACA ATCTAGGTCT	1140
GATTTATGAA ATCAATCTGG ATGAAACGGG GCTCTGCAAG ATTGTCATGA CCTTCACCGA	1200
TACTGCCTGT GATTGCGCG AAAGCCTGCC TATTGAAATC GTGGCAGGTC TGAACAAAT	1260
CGAGGGTATC AAAGATATCA AGGTGAAAT TACCTGGTCG CCTGCTTGA AAATCACACG	1320
AATCAGTCGC TATGGCCGTA TTGCCCTTGG ACTACCACCT CGTTAAGCAG ACCAATCACT	1380
TTTAAAGATG AAAATCAAAG GGCAAACTAG AAAACTAGCC GCAGGTTGCT CAAAACACTG	1440
TTTTGAAGTT ATGGATAGAA CTGACGAAGT CAGCTCAAAA CACTGTTTTG AGGTGTGGA	1500
TAGAACTGAC GAAGTCAGCT CAAAACACTG TTTTGAGGTT GTGGATAGAA CTGACGAAGT	1560
CAGCCCAAAA CACTGTTTTG AGGTGTGGA TAGAACTGAC GAAGTCAGTA ACCATACCTA	1620
CGGCAAGGCG ACGTTGACGT GATTTGAAGA GATTTTCGAG TATGAGTTTA TTTTACCT	1680
GACTTGTTCA TATTCCAGAA GTCTGTCACG GCTCCGCGTG AAGCAGATGA TACGATGTGG	1740
GCATATTTAC CGAGGACACC ACGGCTGTAA AGTGGTGGCA AGGTGTTTC TGCCTTGCCT	1800
TTTCAAGTT CTCTTCGGA TACGGCCATA GAAATTTCTT TGGTATCTTG GTCAACCGTA	1860

742

ACGATATCGC CGGTACGGAG ATAGGCAATT GGTCCACCAT CCTGAGCTTC AGGAGCGATA	1920
TGTCCAACAA CCAGACCATA AGTACCACCA GAGAAACGTC CGTCCGTCAA GAGGGCCACC	1980
TTATCTCCCT GACCTTTACC AACAAATCATT GAAGAAAGTG ATAGCATCTC AGGCATACCA	2040
GGACCACCTT TAGGTCCAAC AAAACGAACA ACGACTACAT CGCCATCAAC GATTTCATCT	2100
GTCAGAACGG CCTGAATCGC ATCTTCTTCT GAGTCAAAGA CCTTAGCTGG CCCAACGTGA	2160
CGACGCACCT TAACACCTGA TACCTTGGCA ACTGCACCGT CAGGAGCAAG GTTCCCCTTC	2220
AAGATGATAA GCGGACCATC CGCACGTTTT GGATTTTCAA GTGGCATGAT AACTTTTTGG	2280
CCTGGAGTCA AGTCTGCAAA GTCAGCCAAG TTTTCAGCTA CAGTCTTACC AGTACATGTG	2340
ATGCGATCTC CGTGAAGGAA ACCATTTGCC AACAAATACT TCATAACCGC AGGGACACCA	2400
CCGACTTCGT AGAGGTCTTG GAAGACATAC TGACCAGATG GTTTCAAGTC GGCCAAGTGA	2460
GGCACACGTT CTTGAATCGT ATTGAAGTCC TCAAGTGACA AGTCAACATT TGCGGCATGG	2520
GCAATGGCGA GCAAGTGAAG AGTGGCGTTT GTAGAACCAC CGAGAGCCAT CGTTACAGTG	2580
ATAGCATCTT CAAAGGCTTC ACGAGTCAAG ATATCTGATG GTTTGAGACC AAGTTCCAAC	2640
ATCTTAACAA CAGCACGTCC TGCTGCTTCG ATATCTTCTT TCTTATCAGC TGATTACGCT	2700
GGGTGAGAGG ATGACCCTGG CAAACTCATC CCTAGAACTT CGATAGCAGT TGCCATGGTA	2760
TTAGCAGTAT ACATACCACC ACAACCACCA GGGCCAGGGC AGGCATTACA TTCAAGACGT	2820
TTACGTCCT CAGCTGTATC GTCACCGTGG TTCCATTTTC CGATACCTTC AAAGACAGAA	2880
ACCAAGTCGA TATCTTTACC ATCAAGATTT CCCGGTGCAA TAGTTCCACC ATAGGCGAAA	2940
ATAGCTGGGA TATCCATATT AGCAATAGCA ATCATAGATC CAGGCATGTT CTTGTCACAG	3000
CCACCGATAG CGACGAAGGC ATCCACGTTG TGACCACTCA TAGCCGCCTC GATGGAGTCC	3060
GCGATGATGT CACGAGATGT TAGAGAGAAA CGCATACCAG GCGTTCCCAT AGCGATCCCG	3120
TCCGCTACGG TAATGGTTCC AAACGTGACA GGCCAAGCGC CTGCAGATTT GACACCTTCT	3180
TTAGCCAGTT TCCCGAAATC ATGCAAGTGA ATGTTACATG GTGTATTTTC CGCCCAAGTC	3240
GAAATCACTC CCACAATCGA TGTTTCAAAG TCCTTATCTG TCATACCAGT CGCACGAAGC	3300
ATAGCACGGT TAGGTGATTT AACCATGCTG TCATAAATGC TACTCGGTG ACGTTTATCT	3360
AATTCAGTCA TCTTATCCCT CCCATTTTCTG TTTTACTAT TATAGCACAA TTTTCGCATG	3420
AAGAACAGAA TAAATTTCTT GAATTTTCTG AAAATTCTAT ACACATGTGA AATATTTAAA	3480
ATTAAAAACA ACAAAGCGGA TTAGTGCACT TTCTGATGAC CAGAATATGC TTTTAAATCC	3540
GCTTTCTTTA AATAACGTAC TGTAATTTTT ACAGAAATTC TTTCAAATAA GTGTATTTAA	3600
CATCTATCTT GCATTATAAA TTTCTAGAAC CTTCTCTTTT ATATTCGATT CACTCAAACC	3660

743

ATACTCATTA AGAAGATAAT CCATTTTCCC TACTTGACCG AATCTTTCTT GAACACCCAT	3720
CCGATGAATT TTGTATTATC CATCATCAGA GAATAATTCA CATAAAGCAC TGCCAATTCC	3780
ACCTATCTGA TTGTGGTTTT CTACAGTAAA TATAGTTTTT CCACCTAACA TTGTTTTTAT	3840
CTGTTCTGGT ATCGGTTTGA TTCTAAATAA ATCTATCACA CCTACTGAAT AACCTAATTT	3900
AGACAGTTCA TCTGCACTC GAATACTTGG AGCAACCATT ATGCCAGAAG CAACGATTAC	3960
AAGATCTTCA CCATGCCTTA ACTCAATGTA GCCTTTAGAA AAATCTTCTC CACCTTGATA	4020
CACAGGAAGT GGAGCTTTTC TAATTGTTTCG AATATATTTT AGTCCTTTTA AGTCTAATGT	4080
CTGGTTCAAT ATTTACAGAA ATTTGGATATC ATCAGTTGCT TCGAAAATGA TTGATTTAGG	4140
AATTAACCGT AACAAATCCAA TTCTTTCAAA TGGCATATGT GTTCCACCAT TCATCTCTGC	4200
CGTTACTCCT GCATCTGATC CAATCACAGT GGCATCCAAT TGTGCGTATC CAAGAGAAAT	4260
AAATAATTGA TCAAATACTC TTCGTGAAGC AAAAGGACCA AATGTATGAA GATAAGTCT	4320
AAACCCCTGA ATAGACAAGC CTGCTGCAAG GCCGACCATT TCTGCTTCCA TAATCCCAAC	4380
ATTCACATAA CGGTCTCCAA AGTCCTTTTC AAGATTATTA GTAGCCATCG AACTTGACAA	4440
ATCGGCTTCT AAGACTACTA TATCAGAATC ACTTTGATTA GCCTCTAAAA GGAAGTCTCT	4500
ATATACATGC CGTAATTCTT TCGTACTTCT CATCATCTG TTTCCTCCAA TTCCTGACTT	4560
AATCTTTCTA CAACTGAAGT TAACATTTGT TTCTCCTCTA CAGTAGGGCG AAGATGATGA	4620
TTGGATTTCA TTCTTCCAG CTCTTGAACC CCTTGACCTT TAATAGTATC TAATACAATG	4680
CACCTAGGTG ATGAATTATT TGACTGTTTT AATTGGACAA TCCCTTCATA AATTTCTCTA	4740
ATATCTGAAC CCTTGACCCT AATGGATTCA AATCCAAATG CTGAAAATTT TTCTACGAAA	4800
TCACCTGGAT TACAAATATC CTTTGTAAAA CCATCTAATT GTTTTTTGT ATCATCAACA	4860
AATACAATTA AGTTGGATAA CTGTTGATGA GAAGCAAACGT GTATAGCCTC CCAACATTGT	4920
CCCTCATTTA ACTCACCATC TCCAACAATA GCGTAAGTAT AAAAGGGACT CTTTCTTATT	4980
CTCTGACCAT ATGCAAGTCC AGTTGCAACA CTAATTCCTT GTCCTAAAGA GCCCGTTGTC	5040
ATATCTATGC CTGGCGTTAG ATTTCTATCA GGATGAGACG GTAATTTGGT TCCATTTGTA	5100
TTTAAAGAAT ATAAGAATTC TTGTCAAAG AAACCATTCA AATAGAGTGT ACTGTATAGA	5160
GCTGGTCCCT CGTGACCTTT TGATAATATG AAATAATCTC TATCTCGTGC TGCAAATAT	5220
TCTGGAGTCA TTGGCATTAT TTCACCATAA AGCACCCTA AAACCTCTAC GATAGACAGA	5280
CTTCCTCCGT AATGTCCGAA TCCAAGATGA TTCAATGTTT TAAGAGTATT TAATCGGATG	5340
TTAGTCGCAA ATTTTCTTAA CCCATCTTCT CTATTTTAC TTAAAAATCAT CCCTTATTCC	5400

744

TCCGTTGCAG ATGGCTTTT AATAAAGGAT ACTCCAAACA TAACTGCTAG AATAAGAACA	5460
AGACCAATCA CAATGCCTGC TTGTGAGCCA AATTGATTTA ACATTCCCTAA AATAATTCCT	5520
GATAGACCAA AATCTGCATC TGAGAAAGTT GATCCTTGGA AACCAAGTCC TCCCAAACT	5580
GGCATTAAAA AGACTGGAAG AAAACTGATT AAAATACCTT GTAAAAATGC TCCAATAGTG	5640
GCTCCACGAA CACCACCAGA TGCATTCCCA ATGACACCTG CAGTCGCTCC ACAGAAGAAA	5700
TGAGGCACAA CACCTGGTAA GATAACAACC GTTCCTGAAG CAATCATAAT TACCATACTT	5760
ACTAAACCAC CAACAAAAC AGAGATAAAT CCAATTAGAA CTGCATTGGG TGCATAAGTA	5820
TAAACAATCG GACAATCCAA AGCAGGTTTT GAATTAGGTA CAAGACGCTC TGAAATACCT	5880
TTAAAGGCTG GAACAATTC GCCCAAAATA AGGCGAACAC CTGCTAAAAT AACAAATACC	5940
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ATTTCTTTTT CTATATATTC TGACCTGCA AAGATAGCTA CAATAATGTA AATAACTGCC	6060
ATGGATAAAG TAATACTAAC AGTACTATCA CGTAAAAAG CTAAACTCTT TGGAAATTTA	6120
ATGTCTCTG TTGATTTTGA TTGTGACCG ATAAGGCTAC CAGTAAACC ACTCAACCAA	6180
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TATTTTGTGA CAAATGCTGG GGAAATACTC ATAATAATAC CGAGTGCTAA TCCTCCTAGT	6300
AAGATGAGAG GCAAGCTAGT AAAGCCAGCA ACTGATAAAA TGACCGCAAT CATACATGCC	6360
ATATATAGAG TGTGTGCCCC TGTAAAAAA ATATATTTAA ATCGAGTAAA ACGAGCGATT	6420
AAGATATTGA ACACCATGCC TGCAACATA ATCATGTCAG TAGCTGAGCC ATATGTTGTT	6480
AAAGCTACAG CTACAATTGC TTCATTATTC GGCACAACGC CAGATAAATG AAAAGCATGC	6540
TCAAACATGG TACCAAATGG ATTTAAAGAA TTTGTACAA TTCCTGCACC ACCAGATACA	6600
ACTAAGAAAC CAACAAAGGT CTTAATTCCA CCTTTAATAA TATCAGGTAA TTTCTTCTTC	6660
TGAAGAACTA ATCCTAAGAT TGCAATTAAA GCTACTAAAA TAGCTGGTGT ACTAACAATA	6720
TCCAATATGA ACTTCATCAT GACGCTAGCC TCCTATATAA GTCCTTTTTC TTCACAAAT	6780
TTAGTAATTA ATTCTCGTAG TTCATCCATA TCAATAATAC TATTTAAGAT ACGAACATCT	6840
CCAAGATGAC TAGCTGAATC AGCTAGATCA CGACCAACAA TCCAAATATC AGCTGCATTT	6900
GGATCTGCTC CACCTAAATC ATAATGTTCA ACTTCTACAT CCGAAACATT CAAATCACTC	6960
AATACAGATT CAATATTCAT CTGTACCATA AAACCTGAAC CTAATCCTGA ACCACAAGCT	7020
GTACCAATTT TTAACATTAT CTAATCCTCC TGTTTAATTA TCATTTTAAT GTCATCATAG	7080
TTTTTTGATG ATATTAAAGT TTGAACATGA TTTTATCTC TTAAATTTGT TGTAAATGT	7140
GACAAAGCCT TTAAATGACT CTCATTATCA ATGGCTGCAA TACAAATCAA CAATCTTACC	7200

745

TCTTGTTCTG GATTATCCAA TAAATAAATC GGTTCCTCCA AAAC TAACAT TGACATTCCT	7260
ATTTCAATCA CACCTTCATC TGGCCGAGCG TGAGGAATTG CTACTCCCTT CCCTAAATTA	7320
ATAAAAGGTC CAAACTCTTC TACTTTTGA ATCATTGCCT CAGGGTAGTT CTCAGTTATC	7380
TTATCTTGAT CCAAAGCGG TTTAGCTGCT AAACGAATCG CCTCCTTCCA TCCTAATTTT	7440
TGCGAACTAA CCTGATAGGT TTCTTTGGTA ATAAGTTGTT CTAGCACTGG TACAATTTC	7500
TTTCTATCAT TTTTGGTA AAGATAATTC TTAAACGCCA ATCTTAATTC CAATCTTGT	7560
GTAATAATTC CATATCTTTT GACAATATTC AGGATTTGTT CAATCTCAAA ATCTCCATAC	7620
TCTAAATTCG GAAATCTTT TAACACTAGT TCTACTAGTT GTATTGCTTG CTCCTCAGTC	7680
ATCATAACCG AAAC TAGATA ATTTGGCTTT TCTGTCTCCA CCTTTATGGT AGAAAAAACC	7740
ATATCATAGT CACTACTAGC TTTCACCTGT AAATCATCAA TCTTTGAGGT TCCTATAAAC	7800
TCAATTTGAG GAAATAATGC TAATAGATTC TCTTTTAACA TCAATGAAGA ACTAACACCA	7860
TTAGGACAAA TGATTGCTGC TTTATACCAT TTTTGAGGCA AAGTATCTGC TTTCTTTAAA	7920
TAACCTCCGA AATGGATAAC AAAATATGCT GTTTCACTAT CAGGTATGGG ATTGTCAATA	7980
GCGTCCATCA AGGGCATCAA AGAATCTTTG ACTAATTCOA ATAAATCAGG ATAATGTTCT	8040
TTAACATGCA ATACATATTC ATTTGAACTA GGTAGGCCGA ACTTTAATCT ATAGTAAGCC	8100
GGTATAAGGT GCGGCGAAG ATTTTCTCTC AATCCTTCCC TTTGTTTAAA ATGTAACAAA	8160
GAAATATCTT CCATCTACT TATAATAGCC TCTGTTAATT GATTAAAGTA AACCGGAGCA	8220
ACATCTACTT CACCTTCAAA GCAACTTGAT AATAAAACCG TGATATAGCG ATAATCATCC	8280
TCAGAAAACA CCGTATCTAT AATTCCCAAA TCAACCACTG TATCCAATAA AATAGTGGTT	8340
ATATCTTGAA TAACAGGAGA TACTAATGTC TCTGAAAGAC ATACTCTTTC AACATCCCTT	8400
TGATACCTAC ACAGAAATGAA TACTAAACCG AAAAGGTAAA CTTTAAATG ATTAACAATA	8460
GGTACTAGCT GTAGCTTCTC ATAATAATCT TTAAC TACCT GATCAATCAA ATCATAAGTT	8520
AATGAATACC CCCAACTGGA TAAAACATAA TCCAAACCCC AAATCCCTAT GGAGGATTCC	8580
AGCAACTCAC TAACCATTG AAAAGCTAAG CGGTGCTTAT TCCACTCTGA ACCGTGTAAA	8640
GTATAACCTT TGCTCTACT GTACCCTAGC TCCAAATCAT TATCTAACAT AATCTTTCTT	8700
AATGATTGAA TATCAGATAA GGTGTATTC TTA CTACTT TCAAAAAGTC TTGGTAATGA	8760
CTATTCGATA TAAATCTAA TCGGCAAAAA GTGTAAAGAT AGATTAAAGC TAAGCGAGTC	8820
GACTTTGGTA AAACCAATTC ATCCGACTTA ATAATATCTG TCAAAGACTG CTTCGTACGA	8880
TTTGATAAAC TATAGCGACC TTGCTTTTA TCCAGCACTA TCCCTTTATT AGCTAGATAA	8940

746

GGCACTAAAT AATCTATTCC TTCTTTGACT TCCTTTATAG GTAAGCTCAC CTTAACAGAT	9000
AATTCATATA ACGATAGCTC ACAATGATCC ATCAAAGTCA TCAAAATAAC TAGTGCTCTA	9060
TAATCAAAC	9069

(2) INFORMATION FOR SEQ ID NO: 98:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8654 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

CGAGACAACA AGATGAAGAA AAATTTGCCC TATCGTTTGT GCGCTTGCA AGTGTCAGAC	60
TTCTTGCAGC CTGTGGAGAA GTGAAGTCTG GAGCAGTCAA CACTGCTGGT AACTCAGTAG	120
AGGAAAAGAC AATTAAATC GGGTTTAACT TTGAAGAATC AGGTTCTTTA GCTGCATACG	180
GAACAGCTGA ACAAAAAGGT GCCCAATTGG CTGTTGATGA AATCAATGCC GCAGTGGTAT	240
CGATGGAAAA CAAATCGAAG TAGTCGATAA AGATAATAAG TCTGAAACAG CTGAGGCTGC	300
TTCACTTACA ACTAACCTTG TAACCCAATC TAAAGTATCA GCAGTCGTAG GACCTGCGAC	360
ATCTGGTGCG ACTGCAGCTG CCGTAGCGAA CGCTACAAA GCAGGTGTTT CATTGATCTC	420
ACCAAGTGCG ACTCAAGATG GATTGACTAA AGGTCAAGAT TACCTCTTTA TTGGAACCTT	480
CCAAGATAGC TTCCAAGGAA AAATTATCTC AACTATGTT TCTGAAAAAT TAAATGCTAA	540
GAAAGTTGTT CTTTACACTG ACAATGCCAG TGACTATGCT AAAGGGATTG CAAAATCTTT	600
CCGCGAGTCA TACAAGGGTG AAATCGTTGC AGATGAAACT TTCGTAGCAG GTGACACAGA	660
CTTCCAAGCA GCCCTTACAA AAATGAAAGG GAAAGACTTT GATGCTATCG TTGTTCTGG	720
TTACTATAAT GAGGCTGGTA AAATTGTAAA CCAAGCGCGT GGCATGGGAA TTGACAAACC	780
AATCGTTGGT GGTGATGGAT TCAACGGTGA GGAGTTTGTA CAACAAGCAA CTGCTGAAAA	840
AGCATCAAAC ATCTACTTTA TCTCAGGCTT CTCAACTACT GTAGAAGTTT CAGCTAAAGC	900
TAAAGCCTTC CTTGACGCTT ACCGTGCTAA GTACAATGAA GAGCCTTCAA CATTTGCAGC	960
CTTGGCTTAT GATTCACTTC ACCTTGTAGC AAACGCAGCA AAAGGTGCTA AAAATTCAGG	1020
TGAAATCAAG AATAACCTTG CTAACAACAA AGATTTTGAA GGTGTAACGT GTCAAACAAG	1080
CTTCGATGCA GACCACAACA CAGTCAAAAC TGCTTACATG ATGACCATGA ACAATGGTAA	1140
AGTTGAAGCA GCAGAAGTTG TAAACCATA ATAGAAAAAT GTTGAAATAG GGAATGAGCC	1200
TTTGACTCAC TCCTGTTTC GATATTTAAT ACTCTTCGAA AATCTCTTCA AACTGCGTCA	1260

747

ACGTCGCCTT GGATTATATA TGTGACTGAC TTCGTCAGTC TTATCTACAA CCTCAAAGCA	1320
GTGCTTTGAG CAACCTGCGG CTAGTTTCCT AGTTTGCTCT TTGATTTTCA TTGAGTATAA	1380
GAACCTATCA AAAAGTGAGG GAAAACCTC GGAATTATAA ATAGAAAGAG TGAATCTTAT	1440
GCTCCAACAA CTCGTAAATG GTTTGATTCT AGGTAGTGTT TACGCGCTGT TAGCCCTAGG	1500
ATATACCATG GTTTACGGAA TTATCAAGCT CATCAACTTC GCCCATGGTG ATATTTATAT	1560
GATGGGAGCC TTTATCGGTT ATTTCTTGAT CAATTCCTTC CAAATGAATT TCTTTGTAGC	1620
GCTTATTGTA GCTATGCTAG CGACAGCTAT TCTTGGTGTC GTGATTGAGT TTCTTGCTTA	1680
CCGACCTTTG CGCCACTCTA CTCGTATGTC TGTTTTGATT ACGGCTATTG GGGTTTCTTT	1740
CCTATTGGAG TATGGAATGG TCTATCTGGT TGGTGCCAAT ACCCGTGCCT TCCCTCAAGC	1800
GATTCAAACA GTTCGATATG ATTTGGGACC AATTAGCTTA ACAAATGTGC AGTTAATGAT	1860
TTTGGCCATT TCCTTGATTT TGATGATTTT GTTACAAGTC ATTGTCCTAAA AGACTAAGAT	1920
GGGGAAAGCC ATGCGTGCAG TATCAGTAGA TAGCGACGCG GCGCAATTGA TGGGGATCAA	1980
TGTAAACCGT ACGATTAGCT TTACCTTCGC TTTGGGTTCT GCTCTTGCGG GTGCGGCTGG	2040
TGTTCTGATT GCTCTTTATT ATAACCTCTCT TGAGCCTTTG ATGGGGGTTA CTCCAGGTCT	2100
TAAATCTTTC GTTGCCGCAG TACTTGGTGG TATCGGAATT ATTCCTGGTG CGGCTCTTGG	2160
TGGCTTTGTG ATTGGTCTAT TGGAAACCTT TGCAGCTGCC TTTGGGATGT CAGATTTCCG	2220
TGATGCCATT GTTTATGGAA TCTTGTGTGTT GATCTTGATT GTCCGCCCCAG CTGGTATCCT	2280
TGGTAAGAAT GTGAAAGAGA AGGTGTAAAC GATGAAGGAA AATTTAAAAG TTAATATTCT	2340
ATGGTTACTC CTTTGTGTAG CTGGCTATAG CTTGATTAGT GTACTGGTTT CAGTCGGAGT	2400
ACTTAATCTA TTCTATGTAC AGATTTTACA ACAAATTGGA ATTAATATTA TTTTGGCTGT	2460
TGGTCTCAAC TTAATCGTTG GTTTTTCAGG ACAATTTTCA CTTGGTCATG CTGGTTTCAT	2520
GGCGATTGGT GCCTATGCAG CAGCTATTAT TGGTTCTAAA TCACCAACCT ACGGTGCCTT	2580
CTTTGGAGCT ATGCTTGTAG GGGCTTTGCT TTCAGGAGCA GTTGCCTTAC TTGTCCGCAT	2640
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GATTCCTAAC TTTACAACTT GGCAAATGGT TTACTTCTTT GTCGTGATTA CAACCATTCG	2820
AACCTTGAAC TTCTTGCGTA GCCCAATTGG TCGTTCAACC CTCTCTGTTT GTGAAGATGA	2880
AATCGCTGCT GAGTCAGTTG GGGTTAATAC GACTAAAATT AAAATCATCG CTTTGTCTT	2940
TGGTGCCATT ACTGCAAGTA TTGCTGGGTC ACTTCAGGCA GGATTTATCG GGTCTGTTGT	3000

748

ACCGAAAGAT TACACCTTCA TCAACTCAAT CAACGTTTGT ATTATTGTTG TATTGGTGG	3060
ACTCGGTTC ATTACAGGTG CGATTGTTTC GGCTATTGTT CTGGGAATTT TGAATATGCT	3120
TCTCCAAGAT GTTGCTAGTG TGCCTATGAT TATTTACGCT TTGGCCTTGG TATTGGTAAT	3180
GATTTTCAGA CCAGGTGGAC TCCTTGGAAC ATGGGAAC TGAGCTATCAC GTTCTTTTAA	3240
AAAATCTAAG AAGGAGGAAC AAAACTAATG GCATTACTTG AAGTAAACA GTTAACCAAA	3300
CATTTTGGTG GTCTAACAGC TGTGAGAGAT GTGACTCTTG AATTGAACGA AGGGGAAC TG	3360
GTGGAATTAA TCGGTCCAAA CGGAGCTGGG AAAACCACCC TTTTCAACCT TTTGACCGGT	3420
GTTTATGAAC CAAGCGAGGG AACAGTAACC CTAGATGGTC ACCTTTTGAA TGGGAATCA	3480
CCTTATAAGA TTGCCTCTTT GGGACTTGGA CGTACTTTCC AAAATATCCG TCTCTTTAAA	3540
GATTTAACAG TTTTAGATAA TGTTTTGATT GCTTTTGAA ACCATCACA ACAGCATGTT	3600
TTTACTAGTT TCTTACGCTT ACCAGCTTTT TACAAGAGTG AAAAGAATT AAAGGCTAAA	3660
GCTTTGGAAT TGTGAAAAT CTTTGATTTA GATGGTGATG CAGAGACTCT TGCTAAAAAT	3720
CTTTCTACG GACAACAACG TCGTTTGAA ATTGTTCTGT CCCTTGCTAC GGAACCTAAA	3780
ATTCTCTTCT TAGATGAACC AGCAGCAGGT ATGAACCCAC AGGAAACAGC CGAATTGACT	3840
GAGTTAATTC GTCGTATCAA AGATGAGTTT AAGATTACAA TCATGTTGAT TGAACACGAT	3900
ATGAATCTGG TCATGGAAGT AACAGAACGT ATCTACGTAC TTGAATATGG CCGTTTAATC	3960
GCTCAAGGAA CTCGACAGCA AATTAAGACC AATAAACGCG TTATCGAAGC TTATCTAGGA	4020
GGTGAAGCCT AATGCTATG TTAAGATTG AAAATCTTTC TGTGCATTAC GGTATGATCC	4080
AAGCAGTTCG TGATGTAAGC TTTGAAGTTA ATGAAGGAGA AGTTGTTTCC CTTATCGGTG	4140
CCAACGGTGC AGGTAAGACA ACTATTCTTC GCACCTTGTC AGGTTTGGTT CGACCAAGTT	4200
CAGGAAAGAT TGAATTTTGA GGTCAAGAAA TCCAAAAAAT GCCAGCTCAG AAAATCGTGG	4260
CAAGTGGTCT TTCACAAGTT CCAGAAGGAC GCCACGCTT TCCTGGCTTG ACTGTTATGG	4320
AAAATCTTGA AATGGGAGCT TTCTTAAAGA AAAATCGTGA AGAAAATCAA GCTAAGTTGA	4380
AGAAGGTTTT CTCACGCTTT CCTCGTCTTG AAGAACGGA GAACCAAGAT GCAGCCACTC	4440
TTTCAGGGGG GGAACAACAA ATGCTTGCCA TGGGACGCGC CCTCATGTCA ACACCAAAAC	4500
TTCTTCTTTT AGATGAACCA TCAATGGGAC TTGCCCCAAT CTTTATCCAA GAAATTTTGT	4560
ATATCATTCA AGATATTGAG AAGCAAGGAA CAACGGTCCT CTTGATTGAA CAAATGCCA	4620
ATAAAGCACT TGCAATCTCT GACCGAGGAT ATGTACTGGA AACAGGGAGA ATCGTCTTAT	4680
CAGGAACAGG AAAAGAACTC GCTTCATCAG AAGAAGTCAG AAAAGCATAT CTAGGTGGCT	4740
AAAACAATCC AGTGGATTGT TTAGTCGGC AGATGGAGAT TACGAAGTAA TCATCAATAT	4800

749

AGTCCGGGGG	ACCTTTT	TAG TCGGTAGATT	GAGATTGCAA	ACAAATCTGC	ATCTACATTG	4860
AAAGCTTAAT	TTCTAATAAT	TGAAAAATC	GAATGAAAA	TTTCTTACCT	TCATTACACAG	4920
AGCTCGATTT	CAGAGCTCTT	TTTGCTAGCT	TATTCATACT	TTTCTGAATT	TCGAAAAAGA	4980
AATGTAAGCG	TTTGATAGAT	TTACAAAAAG	ATTGTATAAT	AGGGATAAGA	ATAGAAAAGG	5040
AGAACTCTCA	TGGCAGTTAA	AGATTTTATG	ACCCGCAAGG	TAGTTTATAT	TAGTCCAGAT	5100
ATAACAGTAT	CTCATGCAGC	AGATTTGATG	AGAGAGCAAG	GTTTGCACCG	TCTGCCTGTT	5160
ATCGAAAAATG	ATCAATTAGT	TGGTTTGGTG	ACTGAGGGAA	CCATTGCACA	AGCAAGTCCA	5220
TCTAAAGCAA	CAAGTCTTTC	TATCTATGAG	ATGAATTATC	TTCTGAATAA	GACAAAAGTA	5280
AAAGATGTCA	TGATTCGCGA	TGTTGTCACT	GTCTCAGGCT	ATGCTAGTCT	AGAAGATGCA	5340
ACTTATCTGA	TGTTGAAAA	TAAGATTAGT	ATTCTCCCTG	TCGTAGATAA	CCATCAAGTA	5400
TACGGAGTTA	TTACTGACCG	TGACGTTTTC	CAAGCCTTTC	TTGAAATTGC	AGGTTATGGC	5460
GAAGAAGGGA	TTCTGTACG	CTTTGTTACA	GAAGATGAAG	TTGGTGTCT	TGGAAAAATT	5520
GTTTCTTTGA	TTGTAGAAGA	AAATTTGAAT	ATCTCCCAT	CAGTCAATAT	TCCGCGTAAG	5580
GATGGTAAGG	TGATTATCGA	AGTGCAAATC	GATGGATCAA	TTGATTTACC	AGCCTTGAAA	5640
GAAAAATTTG	AAGCAAAATG	TATTCAAGTG	GAAGAAATCG	CTCGCACTTC	AGCAAAAGTC	5700
TTGTAAAGAG	GGAAGCCCAA	AGGCTTCTTT	TTTCATGAAA	AGGGGATTAG	AGCAAAAGAT	5760
GGAAAGAAAT	GATAAAATAT	GCTATAATGA	AATAATGTAA	AAAAGGAGTA	TTTATGGACA	5820
TTTCAGTAAT	TCGTCAGAAA	ATTGACGCAA	ATCGTGAAAA	ATTAGCTTCT	TTCAGGGGGT	5880
CTCTTTGACC	TCGAAGGGCT	AGAGGAAGAG	ATTGCCATCT	TGAAAACAA	GATGACAGAA	5940
CCTGATTTTT	GGAACGATAA	TATTGCGGCC	CAAAAAACGT	CGCAAGAATT	AAATGAATTA	6000
AAAAACACTT	ACAATACCTT	CCATAAGATG	GAAGAGTTGC	AGGATGAAGT	CGAAATTTTA	6060
TTGGATTTTT	TGGCTGAAGA	CGAGTCAGTG	CATGATGAAC	TGGTAGCGCA	GTTAGCCGAA	6120
CTTGATAAGA	TAATGACCAG	CTACGAGATG	ACTCTACTCT	TGTCAGAACC	TTATGACCAC	6180
AACAATGCCA	TCTTGAAAA	CCATCCAGGT	TCTGGTGGTA	CTGAGGCGCA	GGAAGGGGT	6240
GATATGTTGC	TTCTGATGTA	TACTCGTTAT	GGTAATGCTA	AAGGCTTTAA	AGTGGAAGTG	6300
TTGGATTACC	AAGCAGGTGA	TGAGGCTGGT	ATTAAGTCGG	TAACTTTATC	ATTTGAAGGG	6360
CCTAATGCCT	ATGGTCTCCT	CAAGTCAGAA	ATGGGTGTTT	ACCGCTTAGT	GCGAATCTCA	6420
CCATTTGACT	CTGCCAAACG	TCGCCATACC	TCTTTCACAT	CTGTAGAAGT	GATGCCAGAA	6480
TTGGATGATA	CTATTGAAGT	GGAAATCCGT	GAAGATGATA	TCAAGATGGA	TACCTTCCGT	6540

750

TCAGGTGGTG CCGGTGGACA AAACGTCAAT AAGGTTTCAA CAGGTGTACG TTTAACCCAC	6600
ATTCCAACCTG GAATTGTTGT CCAATCAACA GTAGATCGTA CCCAGTATGG AAATAGAGAT	6660
CGTGCCATGA AGATGTTGCA GGCTAAGCTC TATCAAATGG AGCAAGATAA GAAGGCTGCG	6720
GAGGTAGATT CTCTCAAAGG TGAGAAAAAG GAGATCACTT GGGGAAGCCA AATCCGTTCT	6780
TATGTCCTTCA CGCCTTATAC TATGGTAAAA GATCACCGAA CTAGCTTTGA GGTGCTCAG	6840
GTAGATAAGG TTATGGATGG GGACCTAGAT GGTTTTATCG ATGCTTATCT CAAGTGGCGA	6900
ATTAGCTAAG ATAGAAAGGA ACTCACATGT CAATTATTGA AATGAGAGAT GTCGTTAAAA	6960
AATACGACAA CGGAACAACT GCTCTACGCG GTGTTTCGGT TAGCGTTCAA CCGGGGGAAT	7020
TTGCTTACAT CGTAGGACCT TCAGGAGCAG GGAAGTCAAC TTTTATTCGT TCTCTGTATC	7080
GTGAAGTAAA AATCGATAAA GGAAGCCTAT CAGTTGCTGG TTTTAATCTG GTTAAGATCA	7140
AAAAGAAAAGA TGTCCTGCTT CTACGTCGTA GTGTTGGGGT TGTCTTCCAG GATTATAAAT	7200
TGTTACCAAA GAAAACGTGC TATGAAAATA TTGCTTACGC TATGGAAGTA ATCGGGGAAA	7260
ATCGCCGTAA TATCAAAGA CGAGTGATGG AAGTTTGGT CTGGTTGGA TTGAAGCATA	7320
AGGTTCTGTC TTTCCCAAAT GAACTCTCAG GTGGGGAGCA ACAGCGGATT GCGATTGCGC	7380
GTGCAATTGT AAATAATCCC AAAGTATTGA TAGCTGATGA GCCAACAGGA AATCTGGATC	7440
CGGATAATTC ATGGGAAATT ATGAATCTCT TGGAACGGAT TAACYTACAA GGAACAATA	7500
TTTTGATGGC GACTCATAAT AGCCAGATTG TAAATACCTT GCGCCACCGT GTCATTGCCA	7560
TTGAAATGCG CCGTGTCTT CGTGACGAAT CAAAAGGAGA GTATGGATAC GATGATTAGT	7620
AGATTTTTTC GCCATTATT TGAAGCCTTA AAAAGTTGA AACGAAATGG TTGGATGACA	7680
GTAGCTGCTG TCAGTTCAGT CATGATTACT TTGACCTTGG TGGCAATATT TGCATCTGTT	7740
ATTTTCAATA CAGCGAACT AGCTACAGAT ATTGAAAATA ATGTCCGTGT AGTAGTTTAT	7800
ATCCGAAAGG ATGTGGAAGA TAATAGTCAG ACAATTGAAA AAGAAGGTCA AACTGTTACA	7860
ATAATGACT ACCACAAGGT ATATGATTCT TTGAAGAACA TGTCTACGGT TAAAAGTGT	7920
ACCTTTTCAA GTAAAGAAGA ACAATATGAA AAATTAACCG AGATAATGGG AGATAACTGG	7980
AAAATCTTTG AAGGAGATGC CAATCCTCTC TATGATGCCT ATATTGTAGA GGCAAACACT	8040
CCAAATGATG TAAAACTAT AGCCGAAGAT GCTAAAAAAA TTGAAGGTGT CTCTGAGGTT	8100
CAAGATGGCG GTGCCAATAC AGAAAGACTC TTCAAGTTAG CTTCAATTTAT CCGTGTGTTG	8160
GGACTAGGGA TTGCTGCTTT GTTAATTTTT ATCGCAGTTT TCTTGATTTC AAATACCATT	8220
CGTATTACCA TTATTTCCCG CAGTCGCGAA ATTCAAATCA TGCGCTTGGT CGGAGCTAAA	8280
AACAGTTATA TCCGTGGACC GTTCTTGTTA GAAGGAGCCT TTATCGGTTT ATTGGGAGCT	8340

751

ATCGCACCAT CTGTTTGGT CTTTATTGTT TATCAAATTG TTTACCAATC TGTCACAAA	8400
TCGTTGGTAG GGCAAAATCT ATCCATGATT AGTCCAGATT TATTTAGTCC GTTGATGATT	8460
GCCCTACTAT TTGTGATTGG GGTTTTCATT GGTTCATTGG GATCAGGAAT ATCCATGCGC	8520
CGATTCTTGA AGATTAGGT AAAATAGCTG CTTTATGAG GAGATTGTAA AATCTCCTTT	8580
TTTGCTACAA GAGTTTGA AAAGAGATGC GCAGAAGAA AGAGCTCCA AAGAAGTCCC	8640
CCAGAGAAGA CTTC	8654

(2) INFORMATION FOR SEQ ID NO: 99:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19718 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TGTCGCGTCA AAATCATTAC TATGGCTATG TATAGCCCTT ACTATGACTT GGCTAAACAC	60
GTTCGCTTTC AAATTTCTAG GCTCAGGCTG AACAGTCTC CCAGGCTGTT CACTCCCGAA	120
TGCTAAAATC GTTCTTGATC GCTTTCACAT TGTACAACAT CTAGCCGTG CTATGAGTCG	180
TGTGCATGTC CAAATCATGA ATCAGTTTCA TCGAAAATCC CATGAATACA AGGCTATCAA	240
GCGCTACTGG AAATCATTTC AACAGGATAG CCGTAACTG AGTGATAAGC GATTTTATCG	300
CCCTACTTTT CGCATGCACT TAACAAATAA AGAAATTCTT GACAAGATTT TAAGCTATTC	360
AGAAGACTTG AACACCACT ATCAGATCTA TCAACTCTTA CTTTTTCACT TTCAGAACAA	420
AGACCTGAG AAATTTTTCG GACTCATTGA GGACAATCTG AAGCAGGTTT ATCCTCTTTT	480
TCAGACTGTC TTTAAACCT TTCTCAAAGA TAAAGAAAAG ATTATCAACG CCCTTCAACT	540
ACACTATTCT AATGCCAAAC TGAAGCGAC CAATAATCTC ATCAAACCTA TCAAGCGCAA	600
TGCCTTTGGT TTTGAAACT TTGAAACTT CAAAAACGG ATTTTATCG CTTTGAACAT	660
CAAAAAGAA AGGACGAAAT TTGTCCTTTC TCGAGCTTAG CTGACTTCAA CCCACTACAG	720
TTGACAAAGA GCCTAATTTC CATAAAAATT GACATGAAA TTATAAACC ATTACTAGTT	780
TAGTCCTTTT TGATAACGTG CCAATTCGGC TTGGTTCGCC CAAACATAGT GACCTGGACG	840
GATTTCTACC ATAGATGGCT TATCAGTCTC ATAGTCGTGT TGACTTGAT CGTAAACCTT	900
CAAGACCTTC TTACGTCCA AGATTGGATC TGGGATTGGT ACCGCTGAAA GCAAGGCTTG	960
AGTATATGGG TGAATTGGAT TGTTAAACAA TTCTTCTGTT TCTGCAACCT CTACAATAAC	1020

752

ACCCCTGTAA ATAACTGCGA TACGATCTGA AATAAAGCGA ACAACCGACA AGTCATGGGC	1080
GATGAAGAGA TAGGTCAGGC CGAGCTCTTT TTGGAATTTT TTGAGCAAGT TCAAGACTTG	1140
GGCACGTACA GAAACGTCCA AGGCTGAAAT TGGCTCATCT GCAATAACAA AGTCTGGTTG	1200
CATGACCAAG GCACGGGCAA TACCGATACG TTGACGTTGA CCGCCTGAGA ATTCATGAGG	1260
GTAACGAGTC AAGTGCTCAG CAAGAAGACC TACTTCACGG ATAATATTTT GAACTTTCTC	1320
TTTACGTTCT TCTTCATCCT TAAATAAACG GTGATTGTAA AGACCTTCAG AAATAATATA	1380
ATCAACAGTC GCACGTTTCA TCAAACTTGC GGCAGGGTCT TGGAAAATCA TCTGGATTCTG	1440
ACGAATCAAT TCCGACGCTT GTTCACGCGA TTTCTTACCA TTAATCTTTT GACCATCAAA	1500
AATGATATCT CCATTACTTG TATCATTTAG ACCGATGATA GCACGACCAA TAGTTGTTTT	1560
CCCCTACCG GACTCACCTA CAAGCGAGAA AGTTTCTCCC TTGTTGATAA AGAAGTTAGC	1620
ATTTTTAACC GCGACAACT TCTTACTTCC TTCACCGAAG GAAATTTCTA AATCTTTGAT	1680
TTCTACTAAT TTTTCAGACA TTTCCTTCCT CCTAGTCAGC CAGATGGGCA AATCCCATT	1740
TTTCACGGAT CTATCATGG AGATTGCAA TCACAGCTGG TTTTCTACT TTCGGAGCAT	1800
CCTCATGAAG AAGCCAAGTT TTAGCCCAAT GTGTCTCTGA TACTGAGAAT TGAGGAGCTT	1860
TTGTTCGAA GTCAATCTGC ATTGCGTAGT CAGAACGCAA GGCAAAAGCA TCCCCTTTCA	1920
GGTCAGTATA AAGTGACGGA GGTGTTCTTG GGATTGAGTA AAGATCCCCT TTATCATCAG	1980
CAAGCTGAGG CAAGCTAGAC AAGAGACTCC ATGTATATGG ATGGCGAGGG TCATAGAAGA	2040
CTTCCTCAAC CGTTCATAC TCAACGATTT CTCTGCATA CATAACCGCT ACCTTATCCG	2100
CAATACTTGC CACCACACCA AGGTCGTGGG TAATAAAGAT TGTGTGAAA TGATACTCGT	2160
TTTGTAAGA TTTTAGCAA TCAATAATCT GAGCTTGAAT AGTTACATCC AAGGCAGTTG	2220
TTGGCTCATC ACAGATCAAG ACATCAGGTC GGCAGGCAAG GGCAATAGCA ATAACGATAC	2280
GTGACGCAT TCCTCCAGAA TATTGGAATG GGTATTCAAT AAAACGTCTA TCTGCGTCTG	2340
GAATGCCAAC CTATTTCATG TAGTCAATGG CCAATTCCTT CGCTTCTTTA GCTGTTTTC	2400
CTTGGTGTTC TACAATAACT TCTGTAATCT GACTACCAAT TGTTTTAATG GGTCCAAAC	2460
TAGTCATGG GTCTGGAAG ATAGTCGCAA TCTTAGCACC ACGAATTGT TCCCAATCCT	2520
TGTGAGAAGA TAAAGCTGTC AAGTCCTGAC CACGGTAGTC AATACTACCT TGGGCAATAC	2580
GACCATTTTC TTCGAGCATA CCTGTGAAG TCTTTGTCAA AACAGATTTA CCTGATCCTG	2640
ACTCACCTAC CAAGGCTAAT ACTTCTCCTT CGACTAGTTC AAGGGAAACG CCGCGAATGG	2700
CTGTCAATAC TTTGTACGA ACGTCAAAT CCACGACAAT ATCGCGAGCA GTCAAAATTA	2760
CATTTTTTTC TTTTGTCAAT TCTACTCCTA TCTATGTGTA CGTGGATCAC TAGCATCCGC	2820

753

TAAGTTTGA CCAACTACGA AAAGGGACAA GGATACCAAG ACAAGGGTTG TCAATGGAAT	2880
CCAGAACAAG TAAGCATTGG TTGTTACGTT TTGTGAATAA TCCGAAATCA AACGACCCAA	2940
ACTTGGCACT GTAATCGGTA ATCCAAGACC GAAGAAAGAC AAGAGGCTT CGTATGAGAT	3000
AAAGCTTGGG AGCATTGAG TCATGGTTGT CACAATAACA GATACCAATT GAGGCATGAT	3060
ATTTTGGCA ACAATCTTCA AGGTTGGTGT TCCCAAAGTA CGTGACGCCA AGTTGTATTC	3120
CAAGTCACGA TAGCGCAAGA TTTGCACACG GATCATGAAG GCAATACCAA TCCATGTTGT	3180
TACGCTCATG GCAAAATCA GATTCCAGAA TCCAGCTCCG ATTGAGTAAG TCAAGACAAT	3240
AACATCAAA AGAGGTGGGA TGTTTGAGAT GACGTTGTAA ACTTCCATCA TGACACGGTC	3300
AACGTATTTT GAAATACCCC AAATACCACC GACAAAAACA CCGATAACCA AGTTAATCAC	3360
TGTCGCAATC ACAGAAATGA GGATGGAGTT ACGAGCTCCG AACCAGACAC CGTCAAAGAG	3420
CGATTACCG TTACTGTCAG TACCGAACCA ATGCTCCGCA TTTGGCTTGA TATAACGAAC	3480
ACTAAAGTCG TTTACCTTGC TGACATCATT GAAATCAAAC TTAGAAAACA TTGGGTAGAT	3540
GAACTTATC AAAATGATGG CTACCAAGAT TCCCAACATG ACTACAGTTG ATTTTCTCTT	3600
CATAAATGT TTAACACTG ATTTCCAGTA AGAATATGCT GCGCATCAA TAGTTTCAGA	3660
GGCAAAATCG TCACGTTTAA CAACTGAAA TTTTCTTTA TCGATTGTAG ACATTATTTG	3720
CCTCCTTTCT CAGTCAATTT AATACGTGGG TCAATAATAG TCATCCAAAT ATCTCCCAA	3780
AGACGTGAGA AGATAGAAAT ACATGTAAAG ATGAAGACAA GACCAACGAC CATAGAGTTA	3840
TTAGATGCTT TTACAGAGTC AATCAACATT TTACCCATAC CTGGGAAGGC GAAGACTGTT	3900
TCAGTAAGGG TTGCACCACC GATAACCCCA ATAATGGCAG CAGGAATTCC TGAAACCAGC	3960
GGAACCATGG CATTTTAAA GATGTGTTTG TTTGAAATTT CTTTTCAGA CAAACCTTTT	4020
GCACGAGCGA AACGAACAAA GTCCTGAGAT TGCAAGTCAA TCATGTAACG ACGAATCCAA	4080
ATGGCTGTAC CAGGAGCACC CAACAAACCA AGGATGACTG CTGGTAAAC GTAAGAACGC	4140
CAATCTCCAG CTCCCAAGAT AGGGAATGAA TCTGGAAGGG CAATAGATGA TCCAATCAAT	4200
CGAACGATGT AAACCAAGGC AATCGTTGGA AGAGCAAGCA AGAAGGTCAA AGCCCTGTT	4260
GAGAGGCTAT CAATCCAAGT GTTCTTGAAA CGAGCCATGG CTGAACCAAG TGGCACGGCA	4320
AGAGCATAGG CAAGAACCAA ACCAATCAAA CCAGTAATAG CAGAGCTGAC AATCATAGAT	4380
GGATATTGGT AATTACTTTC AGTCGCTGTA TAAGGATCAT CTTTCCATA GCTAGCTACT	4440
TCACGAGAGT CAGCCTGACT AGGTGACTTG TAGGTTCTTG AGTAAATATT TACAGAAGAC	4500
GTTTCTTAC CTGPTGGGAA CTGAACTTGG GCAGTTTGG TTTGTCTTG ACCTTGAGTA	4560

754

ATAACCTGAA	GAACCTGGTGT	ATTAGCATAG	GTTGGGTAAG	AGTCACCTAA	ATTCAAGTTC	4620
ACAAAGTTT	GATGAACAAA	TGGGAACCTGA	CTGTTAAAGT	ACAAGAGATA	TTTATGTTTA	4680
GTTCTCTGAAC	CGACCAATGA	CCATCCGATA	GCTGGATCAT	TTTCAAAACG	AAGGTAGCGT	4740
TTCAAGTCTG	GATTTTCAGG	GTCTTGGATT	TTATTTGTAT	GGTCAATGTC	AATCAAGTTA	4800
GCATAGAAGT	GAAAAACACG	TTCAAAAATT	GGAATTTTAC	GAGTAGCATA	GAATTGACCA	4860
CTTTCAGTAA	ATTCTCCCAA	AGTCCAACCA	TGACCTAATT	GATTGATGTA	CTTTTCATAA	4920
ATAGCTTTAT	TGGTCGCATT	TGCTTCTACT	GTTACAGAAG	AATCCATGCT	ACTTGCCTTT	4980
TCTTGCAACT	CTTTAGTATC	GTAATACTCA	ATGTAGCCCA	TACGCTCAA	CACAGTATTT	5040
TCATAGTTAT	CACGTTTATC	AGCCGTTGTC	GCAATTTTAT	TATAGTTAGG	ATCCTGCTTG	5100
AAAATCAATT	TTCGAGGAAC	CAAGGTATAG	ATAATCGTGT	AGGTCAAAGT	CGTTACTAAG	5160
AAAATCGAAA	CCAATGACCG	CAAAACACGC	ATAAAAATAT	ATTTTTCAT	ATTATTCCT	5220
TTAAAAATCC	CAAAAGAACC	TTCTCCTCAT	GGAGAGAAAG	TTCTATTAGA	AATTATTTAC	5280
TTACATGAC	TTGCCAATTC	TTTTTGAGCT	TTCTCATTTG	ATTCAGCTTT	TTCTTCAAC	5340
CATTTTTCAC	GAGCTTTTTC	ATACTCTTCC	TTAGTCACCA	CTTTATCTTG	TGATTTCAA	5400
TATTTGAAGT	AAACATCTGA	CCCCTTAGAG	CCTGTTTGCG	CAGAAGCTCC	AGTAAATGGA	5460
ACAATTCGTG	AAAGCACTGG	TGCTGCACCA	GAAGAAGCCA	TAGCAGGAAT	AAAGAGTGAA	5520
CTATCTGTCA	ACCATGCTTG	AGCCGCTGCA	TATTTTTCAT	AACGGACATT	CAAGTCGCTT	5580
GTCTCTCTGG	CAGCTTCATC	AACTAATTTA	TCGTATTCTT	TCAAACCAAC	TTGAACTACT	5640
GAAGGGCTAT	TTGGATTATC	AAATCCTAAA	TATGTTTTTG	TAGTTTCACT	GCTAGTTGTT	5700
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GATTGTTTAA	AGGACTGAAT	ACGAGATATG	TAGTTTTTTG	ATGCTTGGTC	TACTGGAACG	5940
TCCAGATGAA	TAGGAACTG	AACGCCGTCT	GCTTCTAAAG	CTTTCTTAGC	TTTCGCAAAC	6000
TCTGCCTTGG	CCTGTGCAGC	ATTGAATAAA	CCATCCTGCC	CATCAGCTAA	ATTCACACCT	6060
TTCCACTCAT	CACCATAAGC	AGGAAGTTGA	GCAGCGACTA	AATCACCAAA	GGTCTTCTCA	6120
CCAGCTGAAA	CAAAGTCTGG	TTTTACAAAT	AAATTACGAA	CTGCTAAAGC	TGCTCCATCT	6180
TTACCATTGA	TTTGAGCTGA	GTAAGCTGAG	CGATCAAGAG	CAAAATTCAA	GGCTTGACGG	6240
AAATCTTTGT	TAAGCAATGC	CTTCTTAGTA	GCTACTTTCT	CTGAATCTGT	AGTTTTAGAA	6300
GTATAGTTGT	AACTTTGCGG	ATCAATATTC	ACACCCAGAC	CAGCAATCCC	AGAGCCTGAT	6360

755

TGTGTGTAAT AGATATTGTC CTTGTATTCT TCTGCAACCT TAGAATAGTT GGAGCTGGTA	6420
GGGTAAAGAC GGGCATAACT ATAAGCTCCA CTAGTGAAGT TACGCTCTAG CGACTCCTGA	6480
TCTGATCCAT CATAGTAAGC TAGATTGATA GTATCTAGGT GGACATTTTC TTTATCCCAA	6540
TATTGCTCAT TTTTACAAA CTCTACAGAA GATTTTGAG TCAACCCTTT CAACAAGAAT	6600
GGACCATTAT AAAGCAAGGA TGTCGGATCT GTTGGTTTAG CAAAATCGCT TCCTTTTGAT	6660
GTTTCGAATT CTTCAATCAG AGGCCAGAAA ATAGAATAGG TCAACTTAGA GTTCCAGAAC	6720
GGTTCAGGCT GGTTCAAAGT GTATTGTAAC GTATAATCAT CAACCGCCTT GACACCAACT	6780
GTGAAAAAT CTGTTGAAGT TCCTGATAGA TAATCTGCCA AGCCTTTAAC CGAATTTTCA	6840
GCTAAATACA TAGCTTCTGA TTTTATCTCT GCTGCGTGT TTAACCGTT CACGAAATCT	6900
TTAGCCGTCA CCTCTGCATA TTCTTCTCCA TCAGAGGTAA ACCATTTAAC CCCTTTACGA	6960
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GCAAGATTAC CGTAATTATC GTTAGTGAAT AAACCATCAA TCCCATTTGA AGTCACTACT	7080
GTTGTACTAT TTTTACTTGA AATCAGGTAG TCCAAGGTTT CTGGGTCTGC TGTATAAACA	7140
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ACACCTGCTG CTAATAAAAC AAGACCTGCT GTAGCAAATA CACGATTTT TTTCAATTTT	7260
TACTCCTCTG TTTATGTGAA TTATAGATTG ACAACCATTA TATCACATTA TCCATTAAAA	7320
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CAGAACTTT GGAGTTTAGG AAGACATACA GTAAAATGAA ATACGGACGG AACAATGTGA	7500
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TCAGTTTACT ATGTCTTTTC ACACCAACCT TATCCCGAAT TCAATTACTT TTGTGATTTA	7620
CATATATAGA TTAAGACTAT CTTTATACT TTAATAATTC TCGCTACCTT ATCCACTATA	7680
TGCTCCTCGC TATCACGTTT CTATTCATAG CCTACGATTT CACTATTGCT TTCTCTGACA	7740
ATTCTTATTT CTGCGTCAG ACTTAAACG ATCTATCCCC AGACCATTTT AATCCGCTAC	7800
CTCACGATAG TCAGGCTTGG GGAGCGCTAT TGTATTACCC GGTAGTGGAG CCCTACAGAG	7860
GACTTACACC TCAGATGCAC GACATGCCCA TCGTATAAAA AATCTCCTAC CCAAGGTAGA	7920
AGATTTCAAA CTTATAAAAC TTAATCCGTC ATGTCCGATA CCAACATTCG ATGCTCCAAT	7980
GGAATACTGC ACATAACTAG CAAGAAAATA AAGCCTGACT GAATCCAGAA GAGAGCCAAG	8040
TCAAAAATTC CGTGCACAGC AACCCTGTA AGGAAAGATA GATAAAGGCC GATAATCGGA	8100

756

CGTTTCCCCG ACTCCTGACT CATATCCATC ATCAAGCGAA CAGGAGCAAC AGAAGACAAA	8160
ACTAATAAAA TAGTCCCCAC AATTCCGTAA CTCAGAATCG TATCAATATA AAGACTGTGG	8220
GCATGTTTCAT GATAAGGAGC ATGTATCCGA GGATAAGAGT TCATATAGGT CAATGGCCCT	8280
TCACCCCAAA AAGGATTTTG CTTAAACAAG GCCATCCCAG CATCCCAGAT AGAAATGCGT	8340
TCTTCCATAG AAGAGTCTAA AGTACCCATT CGAACTCCCA AATCACTAGA AAAGAGGAAA	8400
CTCAAACCAA TCGCGAAGAC CCCAATACTA AGCCAAAAGG CCTTCCAGTT TTTAATAGTC	8460
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AAGTTCAAAC CAAAGAGATT AACAAAGCCT GCAATCACAC AGAATACTTT CAACCAATTC	8580
AACTTGGTCG TTGTAACAG ATAGAAAGCA ATCATAATAC AGAAACAACA AATAATTCCA	8640
TAATAATTAG GATTAAAGAA GGTCACTTCT GCCCGGTTCT GATGCCACAC CTGCATATTG	8700
GGTGAAAGAA AAGCATAGTT AAATTCTTC ACAATTGGA AATGTTCTAA ACTGGCAAAA	8760
GCAGCTGACA AGACACTACC AAACAAGACA AACTGCAAAA TCAATCGAAA GAATTTATGG	8820
GATAAATCG ACTGATAGTG CAAAAGAAA ATAGTAAATA GAAACATTCC TACTGAAGCC	8880
ACAAGACCCA TCCAATTTTG TGCAAGAATG GATATAACAG TACTATAGCT AAGAAAAAGA	8940
AGCAGCATCG GATGCTCCCC CATTTCTGA AGAATACTTT TCATGTCTCC TGTAAAAATC	9000
AACTGATAA TATATAACA GAGTACAAC AAAAAAGAT AAAAGGGTAA AAAGATACTC	9060
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CCTATTGATT TCAAAATGAA TCCTTCTCT CCAATCAGC TGATTGAGT AATAGTAAGC	9180
TATCCTATAT TGTACCACTT TTTAGCAAT TTGAAAACAA AGGAAACGTT TTCCAAAATA	9240
AAAACCCAT TTTATCCACC ATATCAAGGC TTCAAAATGA TACTTCAACT CCATTCTCAA	9300
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TATTTTGACG TTTGATTACA ATGCTGTGAG CTGTTGGTGT CTCTATCTCA GTAGTCCCTT	9420
CTAGATCAAA GGGTTCTGAA CGGTTACGGA AAGAAAATAG ATTGAGAAGG GCCTTCACAA	9480
CAGGTCGTTG CACTTCTTTT GCTATTTCCT CGTTGCTATA GTAATGACGA TTAATATTC	9540
GACCTTCTTT AGTTTCTTCT AATAATTCA AGTCATTCTT GCCTGCTAAT AGACCCACAT	9600
AGTAAATCTG AGGAATACCT GGGGCAAAAG CTTGAATTAG ACGAGCGAGA AAATACTTGA	9660
CATCATCATC TCCAAGCGCT GAATAGTAGG TTGAATTGAT TTGGTAGATA TCTAAGTTGT	9720
TATACTCGGC ACTAGAGTAC TTACGTTTGA CATGGCTCC AACCTTATAG AGTTCATTTG	9780
AAGCATAGTC AATCTCCTCA TCGGTCAGGA TATCCTTGAC ATCTACTACT CCAATCCCAT	9840
CATGGGTATC TAGCGTCGTA AATTGCTTCA TCGGGCTCAT CTTAACCAC TTAGCCAAAC	9900

757

GCTCTGTTCT	GGAACGTGTA	AGAGTATAAA	GTGTCACCAT	TGGAAGAGCA	AAATCATAAA	9960
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GACGAATCAA	ATCACACCCA	TTACTTGCCA	AGTGCTGAAT	GGTCTTACGG	ATAAATTCCA	10200
TAGTTACTTC	TTTGCTCACA	TCAAGATCAA	TCTGCTCCTC	ACCAAAGGTA	TTCCACAAAT	10260
GTTCCACTGA	ACCATCTTCA	AACACAATCT	CTTGCTTTGG	TGCACGATCC	TTACGCTTGT	10320
AAATTAAATC	TACATCAGAC	TGTGTCGGAC	GGTTTTCTGG	CCAAAACCTA	TCCCAGTTTA	10380
AAAAGAGAGC	TTTAAATTCA	CTGGCTTCAT	GTTTTTCTTG	ATAGTCCTTA	TAATACTTGG	10440
ATTGACGAGA	AATATGATTA	ATCATAAAAAT	CAAACATAAG	ATAATATTTC	TCACCTAAAC	10500
GCTTCACATC	CTCCCAATCA	CCAAAAGCTG	AGTCCACTTC	GTCGTAGTCA	ACTGGCGCAA	10560
ATCCACGATC	AACGTGTTGAT	GGGAAAAATG	GTAAGAGGTG	AACCTCTCCA	ATAGCATCTC	10620
CAAAATGCTC	TTCCAAATTA	TCATATAAGT	CTTTAAGATT	ATTTCCAAGG	CTATCAGAAT	10680
AGGTAATCAA	CATGGTTTAA	TTTTGAATTG	GCATCATTAC	TCTCCTTTTT	CTAATTGAAG	10740
CCAAGTCTCA	TATGATCTGG	CTTCATAAAT	AAAATTCATT	TTAAATCTCT	ATTTATCATC	10800
AAACTCGTAC	TAATATAGAC	TGTGATAAAC	AAAGTACTAC	TTTCTTGTTT	TCTGCATAGA	10860
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TGACTTCGTC	AGTTTCATCC	ACAACCTCAA	AACAGTGTTT	TGAGCAACCT	GCGGCTAGCT	11040
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CATAGGTCAA	GTAGAGCAAG	ATCAAACCAA	AGGTATTAGC	CAAACCGAGT	TTACTCATCA	11520
TAACCGTAAT	CGGAATCATG	ATGACTTGGA	AAGGTACGAA	GATTCCGAGG	ATTAAGAGGG	11580
TATACATGAT	GGTAAAGGCT	TTTCTTTTAC	TCATATTGCG	AGCGATGGAG	TAGGCTGCCA	11640

758

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TTGGCATAAC CGAATTGGTT GTTTTAAAG GCATAGTTAT AAACCAAGAG CCCAAGTGAG	12060
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AGAAGGACAA AGACAGCCGC AAAGATTGCT CCCCACTTAG TCCCTAAAAG ACTGGTTTGG	12360
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ATCCGACAAT TTAATGGCAT TTGTTGAGA ATAACGAAGG TATTGATTTG CTTCTTTTCC	13440

759

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TCCGAGAATA AGTATGCTCA TAGCCAGGAA CCTGAATAGC CCAGTCAGGA TGTGACGAT	15060
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TTTCATGGAT AGCTGAAATC AGACTTTCTA GACTTCCACC CAGTTTTTCC TCATTAACAA	15180

760

CCCAATCACC TAAAGCACGA TTATCATCAA AACGATTGCC AAACCAACCA TCATCTAATA	15240
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GAAAGTCAAA GTAAGTAGCT TCCCAGTTAT TGATTAGAAT TGGACGTTCT TTTTGTAGAA	15360
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761

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ATGGAGCTTC AATCCATTGC TCTACCAACT GAGCTACCGA GCCTTATTGC GGGAGCAGGA	18720

762

TTTGAACCTA CGACCTTCGG GTTATGAGCC CGACGAGCTA CCGAGCTGCT CCATCCC GCG	18780
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AACCGGACGC TCTAGCCAGC TGAGCTACAC CGCCATGAAT CGGGAAGACA GGATTCGAAC	19080
CTGCGACACC TTGGTCCCAA ACCAAGTACT CTACCAAGCT GAGCTACTTC CCGAGTTAAA	19140
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TGACCCATG ATTAAGGTC AATTGCTCTA CCAACTGAGC TAACGAGTCT AAAATAACTT	19680
GCGTTACCTT AAACGGTCCG ACGGAATCGA CCCGGTAC	19718

(2) INFORMATION FOR SEQ ID NO: 100:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4117 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

CCGTGGA AAA GTCTGGATAG TGAATGGTCT TCACACAATG ACCTGAAAGA AGCCTGAGAA	60
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AGAGGGAATA TTGAGGAGAA AATCCTGAG CCTACCAGTT GGAGTTGGAA AGAGCTGACT	180
GTTAGATCAT GGTTTATTAT CCACAACCTG TGGATAACTT TGTGAATAAG AGAAGTTGCT	240
AAAGAAGGAG ATATATAACG ATGAAGAAAA TCAAACCGCA TGGACCGTTA CCAAGTCAGA	300
CTCAGCTAGC TTATCTGGGA GATGAAGTAG CAGCTTTTAT CCACTTCGGT CCTAATACCT	360
TTTATGACCA AGAATGGGGG ACTGGACAGG AGGATCCTGA GCGCTTTAAC CCGAGTCAGT	420

763

TGGATGCGCG	TGAGTGGGTT	CGTGTGCTCA	AGGAAACGGG	CTTCAAAAAG	TTGATTTTGG	480
TGGTCAAGCA	CCACGATGGC	TTTGTCTTTT	ATCCGACAGC	TCACACAGAT	TATTCGGTTA	540
AGGTCAGTCC	TTGGAGGAGA	GGAAAGGGCG	ACTTGCTCCT	TGAAGTATCC	CAAGCTGCCA	600
CAGAGTTTGA	TATGGATATG	GGGGTCTACC	TGTCACCGTG	GGATGCCCAT	AGTCCCCTCT	660
ATCATGTGGA	CCGAGAAGCG	GACTACAATG	CCTATTATCT	GGCTCAGTTG	AAGGAAATCT	720
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ACCTGCAGGG	CGATTGCTTG	ATTTTTCCTA	CAGAAGGCAC	CAGTATCCGC	TGGATTGGCA	900
ATGAACGAGG	GTATGCAGGT	GATCCACTGT	GGCAAAAGGT	GAATCCTGAT	AAACTAGGAA	960
CAGAAGCAGA	GCTGAACTAT	CTTCAGCAG	GGGATCCCTC	GGGCACGATT	TTTTCAATCG	1020
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CTCTCGAGGA	GTTGGTCGAA	ATCTACTTTC	ACTCAGTAGG	GCGAGGAACT	CCACTCTTGC	1140
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AAACTTTTGA	TGTAATTGAG	TTAAGAGAAG	ATTTGAAGCT	AGGGCAACGA	ATCGCTGCTT	1440
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TTGTGGTTTT	GTTTAGTATG	GATATCCAGC	CATTTATCTT	CTTTAGCGAG	GTAGACTCGT	2160

764						
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AATCCGAGAG	CTGACCAGAT	GTACCAAGCA	GAGAGACTAC	CATTGTCTTC	ATCTCCAGGA	2280
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TAGTCAGGGT	AATCGCTGTA	ACGGAAGAGA	TAAGGAATGT	GGAAACTAGG	CTGGTTGGAA	2400
ATGGCTATTT	GTCCAAAAGG	AGCAGTAGCC	ATCTCGCTCA	TTTCGTGAAT	TTCGTAACCA	2460
TAGCCTGTTG	TTTCAAAGAG	GGGAGCATCT	TGACAGGCTT	TCAAAAGATA	GTTGCTAAAG	2520
GTTTCTTTTC	CACCCATCAG	TTGGATTAA	CCAGGGATGT	CGTGGAGAAC	GCCTAAAGTA	2580
GCTTGAATGG	CAGAGCATTC	AGCGTAGTCT	CGCCCCAAC	TATAAGGAGA	GAAGTCAGGG	2640
TGAAAGTTTC	CTTGATTGTC	TCGTGCTCGC	ATGTAACCTG	TCTCAGCGTC	AAATAGCTGG	2700
CGGTAATTTT	GTGAAGCAGC	CTTGTAGGTT	TCAGCGATTT	CTATGTTCTC	TAGTTTTTTG	2760
GCACAGCTGG	CGATACAAAA	GTCACTATAG	GCATAGTCTA	GAGTATGGCT	AACACTTTCG	2820
TGGTGGTCCG	TAGAGAGGTA	ACCTAGTTCT	TGGTATTGGG	CTAGTCCGTG	GCGGCCATTG	2880
ATGCCGAGAG	GGTCGGCTTT	GCTGGCTGTT	TCGAGCATGG	CTTGGAAGAG	TTCTCCTTCT	2940
AGGTCGGGGG	TCATGTCTTT	GCAGGCGCTA	TCTGCGATAA	TACCGTCTAA	AAGTGTACCT	3000
GGCATCATAC	CCCGTTTCATC	TGGAGCCAGC	CATTTTGGA	GGAAACCAGT	ATCGCGGTAG	3060
CTATTGAGGA	AACCTTCTAA	AAAGCGTTGA	TAGTGCTCCG	GTATGATAAG	GGCAAAGAGG	3120
GGGAAGGTGG	TGCGGAAGGT	ATCCCAGAAA	CCATTGTTGC	TAAAGAGGAC	ACCAGGCTTG	3180
ACAGTACCAG	TAGCCAGATC	CATGTGGATG	GCTTGCCCTG	ATTCAATTAAT	CTCATAAAAA	3240
GTCTGTGGGA	AGAGGAAGAG	TCTGTAGAGG	CAGTGGTCAA	AGAAGGTTTCG	GTCAGCCTCT	3300
CCTGTCTCTA	TAATGTCAAA	ACGATGGAGG	AGATTTTCCC	AATCCACTTG	GGCACTTGAT	3360
TTACAGCTAT	CAAAATCTTC	TTGAGGTAGA	TTGATTAGAG	CTTGAGAAGG	AGAGATGAAA	3420
GAAGTGGCTA	GTTGCATCTC	GGTTTGACTA	CTTGCTAAGT	CAATTGCGCA	GTCCTCCAGCT	3480
TCTTGGCTGA	TAGCAAGAAT	ATCCGTGTTT	ATTTGCAGGG	CAGTGAACAT	CGTTAGCGAA	3540
TTTTTGTTAG	TTTCAGTTTT	ACCTTCTTGT	CGCAGGGCAA	GAGTCCGCTT	ATCTACTTGC	3600
TCTACTGTCA	GTTTCATCTGC	TGCGTGAAGA	TAGAGGGAGA	GGGCTTTGCC	TTGCTTTTGA	3660
TTCAAACGAA	TAGAAGCACC	ATAGCAAGTC	GGTGTGAGCT	GGGTTTCAAT	CTGATAACGC	3720
AGAGAAAAGA	GCTTCAAATA	GTGAGGCTGG	AAGCAAGCTT	TATCTATATC	ATAAGAAGAC	3780
TGGCGGTGAA	AGAGGCTGTC	TCCCCCAGT	TGACTGGTGA	CAGGTGTCAG	AAGGAGCCAA	3840
GAGTAGTCCC	CAATCCAAGG	ACTGGGCTGG	TGAGTTAATC	GAATCCCCTG	AAAGATAGGC	3900
AGATGTGGAT	CAAAAAACCA	AGATCCATCC	TGGTCACTGG	TCTGGGGCAC	AAAGTAATTC	3960

765

ATCCCCAAAG GCACGCCTGT GTATGGCAGG GTATTTCCTCC GAGAAAAGGC ATGCTTGTTG	4020
GTAGTTCCAA AACGGGTATC GATGGTATCA AGTAGTGGTT TCATAGTCTT TCCTTTAGCT	4080
GTTTTTCTAC ATTATATCAG TAATAGAGGG CCTTTAG	4117

(2) INFORMATION FOR SEQ ID NO: 101:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2727 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

CTGGTTCAAT TATTATTCAC TCTAAGTAGT CATATGTTCT TTATTTATGT GAGTTTTTAC	60
CTTTTAAAGG ATCTTGTTAG ATGGGAGAAG GTTTTAAAG TGACAGATGA TAATACAAGA	120
AAAGTTCGTT TATTAGTAGC CTTTTTTAGC ATTGTCATAG GCTACATCCT GAGTTCCTTC	180
TTTATTAGCC TGTATCATTT GTGGCAAGAA GCGCTTAGAG GATTATTATG AAATCAAGAG	240
TAAAGGAAAC GAGTATGGAT AAAATGTGG TTCAAGGTGG CGATAATCGT CTGGTAGGAA	300
GCGTGACGAT CGAGGGAGCA AAAAATGCAG TCTTACCCTT GTTGGCAGCG ACTATTCTAG	360
CAAGTGAAGG AAAGACCGTC TTGCAGAATG TTCCGATTTT GTCGGATGTC TTTATTATGA	420
ATCAGGTAGT TGGTGGTTG AATGCCAAGG TTGACTTTGA TGAGGAAGCT CATCTGTCA	480
AGGTGGATGC TACTGGCGAC ATCACTGAGG AAGCCCCTTA CAAGTATGTC AGCAAGATGC	540
GCGCTCCAT CGTTGTATTA GGGCCAATCC TTGCCCGTGT GGGTCATGCC AAGGTATCCA	600
TGCCAGGTGG TTGTACGATT GGTAGCCGTC CTATTGATCT TCATTGAAA GGTCTGGAAG	660
CTATGGGGGT TAAGATTAGT CAGACAGCTG GTTACATCGA AGCCAAGGCA GAACGCTTGC	720
ATGGTGCTCA TATCTATATG GACTTTCCAA GTGTGGTGC AACGCAGAAC TTGATGATGG	780
CAGCGACTCT GGCTGATGGG GTGACAGTGA TTGAGAATGC TCGCGCTGAG CCTGAGATTG	840
TTGACTTAGC CATTCTCCTT AATGAAATGG GAGCCAAGGT CAAAGGTGCT GGTACAGAGA	900
CTATAACCAT TACTGGTGTT GAGAACTTC ATGGTACGAC TCACAATGTA GTCCAAGACC	960
GTATCGAAGC AGGAACCTTT ATGGTAGCTG CTGCCATGAC TGGTGGTGAT GTCTTGATTG	1020
GAGACGCTGT CTGGGAGCAC AACCGTCCCT TGATTGCCAA GTTACTTGAA ATGGGTGTTG	1080
AAGTAATTGA AGAAGACGAA GGAATTCGTG TTCGTCTCA ACTAGAAAAT CTAAAAGCTG	1140
TTCATGTGAA AACCTTGCCC CACCCAGGAT TTCCAACAGA TATGCAGGCT CAATTACAG	1200

766

CCTTGATGAC AGTTGCAAAA GCGCAATCAA CCATGGTGGA GACAGTTTTC GAAAATCGTT	1260
TCCAACACCT AGAAGAGATG CGCCGCATGG GCTTGCATTC TGAGATTATC CGTGATACAG	1320
CTCGTATTGT TGGTGGACAG CCTTTGCAGG GAGCAGAAGT TCTTTCAACT GACCTTCGTG	1380
CCAGTGCGGC CTTGATTTTG ACAGGTTTGG TAGCACAGGG AGAAACTGTG GTCGGTAAAT	1440
TGGTTCACCT GGATAGAGGT TACTACGGTT TCCATGAGAA GTTGGCGCAG CTAGGTGCTA	1500
AGATTCAGCG GATTGAGGCA AGTGATGAAG ATGAATAAGA AATCAAGCTA CGTAGTCAAG	1560
CGTTTACTTT TAGTCATCAT AGTACTGATT TTAGTACTC TGGCTCTAGG AATCGGTTTA	1620
ATGGTAGGTT ATGGAATCTT GGGCAAGGGT CAAGATCCAT GGGCTATCCT GTCTCCAGCA	1680
AAATGGCAGG AATTGATTCA TAAATTTACA GGAAATTAGG CTGGAGAACC AGCCTTTTTC	1740
TAAAGATAAG GAGAAATATG AACAAAAAAA CAAGACAGAC ACTAATCGGA CTGCTAGTGT	1800
TATTGCTTTT GTCTACAGGG AGCTATTATA TCAAGCAGAT GCCGTCGGCA CCTAATAGTC	1860
CCAAAACCAA TCTTAGTCAG AAAAAACAAG CGTCTGAAGC TCCTAGTCAA GCATTGGCAG	1920
AGAGTGCTTT AACAGACGCA GTCAGAGTC AAATAAAGGG GAGTCTGGAG TGGATGGCT	1980
CAGGTGCTTT TATCGTCAAT GGTAAATAAA CAAATCTAGA TGCCAAGGTT TCAAGTAAGC	2040
CCTACGCTGA CAATAAAACA AAGACAGTGG GCAAGGAAAC TGTTCCAACC GTAGCTAATG	2100
CCCTCTTGTC TAAGGCCACT CGTCAGTACA AGAATCGTAA AGAAACTGGG AATGGTTCAA	2160
CTTCTGGAC TCCTCCAGGT TGGCATCAGG TCAAGAATCT AAAGGGCTCT TATACCCATG	2220
CAGTCGATAG AGGTCAATTG TTAGGCTATG CCTTAATCGG TGGTTTGGAT GGTTTTGATG	2280
CCTCAACAAG CAATCCTAAA AACATTGCTG TTCAGACAGC CTGGGCAAAT CAGGCACAAG	2340
CCGAGTATTC GACTGGTCAA AACTACTATG AAAGCAAGGT GCGTAAAGCC TTGGACCAAA	2400
ACAAGCGTGT CCGTTACCGT GTAACCCCTT ACTACGCTTC AAACGAGGAT TTAGTTCCTT	2460
CAGCTTCACA GATTGAAGCC AAGCTTCGG ATGGAGAATT GGAATTCAAT GTTCTAGTTC	2520
CCAATGTTCA AAAGGGACTT CAACTGGATT ACCGAAGTGG AGAAGTAACT GTAACTCAGT	2580
AAAAGATACG CCTACACTCC TATGTCACCT ATGGATGTAG GAGTCTTTT TACTAGTTTA	2640
AGCAGGACTA AGACAGGTAC TAAGACAAAA TAGCAACTTC TAAACTAAC TTCCAGTTT	2700
GGGAGAGAGA TGAAGTTAC TTTGAGA	2727

(2) INFORMATION FOR SEQ ID NO: 102:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5717 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

TTTTTTGTAG ATTTAAGTGG GGTGCAATTC CTAAAAATA AAAACAATT TTTGAAAATT	60
ATGTTAGCAG GAATTCCTTC AAATTCGATT TTATCACTTA CAGGTTTACT TGTTTTATTG	120
TTCACATCGT ATAAATTGCT TGGACTCTTA TTTTATCA TTAAGTTAGG TATGATTTT	180
ATTAATTCAA TTCCTTTTTT TCAGTATGAT AGTGGTATTA TTTAAGATA CTTGAATTCT	240
AACAATAATA ACTTGAATTT TCAATATATA GTTCAACTTT TAATAGCATT TGTATTATT	300
TATTTTCCTT TGAGTCAACT ATTACAGTTT TTGACACCCA ATATTATTGT TCGTAGTATA	360
GGAGGGGTGG TTGTTCTAT ACTGCTTCT ATATTATATA TGATAGGAAG GACGAAATAT	420
GTTCTACGTA AATAGTTATG TTTTGCCTTA TAAAAAGAA GGTATAATGT ATTTACGTGG	480
TCGGAGTATG CGGGAATAG CTATAGAACC TCAATTTTCG CAAGAATTTA TCAACGATCT	540
ATTTAATAGT TGTAAGGAAC TATTAGAGAT AGAAGAAGTA TTAGGCAGTA AACTAACATT	600
TGAAGTATAA ATGAACAAAT TTTAATTTTCG GATGAGATAG ATATTGATAG TAGATATTCT	660
AGAACTAAAG GTTACTATTG GTTATTTTAT AATGAAGAGT ATAATAAAAT ACAGAATAAA	720
ACAGTATTAG TATTAGGAGC AGGAGTCTTA GGATGTTATA TATCTCTAAG TCTAAGTATG	780
TATGGAGTGA GGAACTTAT TGTCGCTGAT TACGATATAA TAGAACCATC AAATTTAAAT	840
AGGCAAAATC TTTATACAGA GTCGGATGTT GGTAAGGAGA AGATTAATGT TCTTTCTGAA	900
AAAATACACA AGTATAATTC AGATGTTTCAG GTAGTACCTA TTTCTATTAA AGTTTCTTCA	960
GTAGAAGAAT TAGAAAAAT TGTTCGGGAA TATGGGAGTA TAGATTTTAT CGTTAAAGCA	1020
ATTGATACGC CCATTGATAT TATAAAAATT GTCAATCAAT TTGCTGTATC GCATAAGATA	1080
TCCTACATAT CAGGAGGGTT TAATGGATGC TATCTTATTA TTGATAATAT ATATATCCCT	1140
ACCATCGGTT CTTGCTTTGG TTGTCGGAAT ATAAACAAAG ATATAAATAA GTACACTTTA	1200
TCTGATAAGA CAAAGTGCC GACTACACCA GAGATGCCTG CTATTTTGGG AGGGATAATG	1260
ACTAATTTAA TAATTAAAA ATTTCTGGGA TGTTATAATG AAATCCTAAT AGATAACGCT	1320
TACGTTTATA ATATGAGAAA TCATGCTCTA AGTCAAGAAA AATATGTTCT GGAAACGGA	1380
GAATGTCCAA TTTGTAAAAA AATAATAAAG TGAAAGATAA CAATATTAGA GCGAAAACAT	1440
TTATTCGTTT AGTTTGTTTT TGCTTATTAT CAGGAGGAGT AGCTTTTTTA TCTGCTATTG	1500
GGCAGTTCAC TGTATAGAA ACACAATTAA TAGTATTGTT CTTGGGTATT ATTTTGTCTA	1560
TATATTATGC TTAATACAAT AAAAATATTC AAACATCATT GGAAATATA GTATGGCTTT	1620

768

TTTCATCGTT TGAGATTTTA TTTTGCTTG TTAATTTTAG AACATTTATT CAGTTACCAG	1680
TGGATATTTT TATTGGTATG ATAATATTTT TAATGCTGTG GATATTTATT ATGTTAGGTA	1740
TAGTGTGTCT TAGTTATTAT ATAACTTTAT TATTTAGCAA GGAGGCTTAG TATGTTTAAA	1800
AAAATAGGTA TAATGAGCAT TTGCATATAT ATAATTATTT TATACTGCTT GAGAATGTAT	1860
CGTATTATCA ATAATATTGA AACAACTTG CTAACGGTTA TATGCTTAAT GTTATTGTTT	1920
TTTTTAAGAC GTTTATTTGA TAAAGATAAG TAAATAGATG TTAAGTAAAA ATGTAGAATA	1980
TAAAGAGGT GCAATGAGTA TGATTGAAGT TAGCCATTTA TCAAAAAGTT- TTGGTGATAA	2040
AATAGCTTTA AATAATATAA GCTTCACTGT TAAAGAAGGT TAGATTTTGG GATTTTGTAGA	2100
ACCATCTGGT TCTGGAAAGA CCACAACGAT TAATATTCTG ACTGGGCAGT TCCTTGCCGA	2160
TAAAGACAA TCTATTATTT TGGGACAAAA ATCTCAAAAT TTAACAAGCG GTGAATTAAA	2220
GAGAATTGGA TTGGTTAGCG ATACAAGTGG ATTTTATGAG AAAATGTCTC TGTATAACAA	2280
TCTTCTTTTT TATAGTAAAT TTTATAATAT TAGTAAATCA CGTGTGATA ATTTGTTAAA	2340
GCGAGTAGGA TTATATGATA GTCGCAAGAT GGTAGCAGGA AAATTATCCA CTGGAATGAG	2400
GCAACGAATG CTTTATGAC GAGCTCTTAT CAACAACCCC GCTGTACTCT TTCTGGATGA	2460
ACCGACCTCA GGTCTAGATC CCACAACCTC TCGAACAATT CATGAGTTAA TTTTAGAATT	2520
GAAAACAGCA GGGACAACGA TTTTCTAAC GACTCATGAT ATGAATGAAG CAACTCTTTT	2580
ATGTGATTAT GTTGCCTTAT TAAATAAAGG GAAATTAGTT GAGCAAGGAG CTCCTTCTGA	2640
ACTCATTCOA AGATATAATA AAGATAAAAA GATTAAGGTT ACAGATTATA ATGGGAATCA	2700
GATAACTTTT GATTTTACAT CACTAGAACA GGTATCTCAG ACTGATCTGG AAAATATTTT	2760
TTCAATTCAT TCATGTGAGC CTACTTTAGA AGATATTTTT ATCATTATA CAGGAGGAAA	2820
GCTAAATGCT TAAACGGTTT CTGGCTTTGG TATGGTTGCG TTGTCAAATC ATCCTTTCCA	2880
ATAAGAGTAT TTTATTGCAA GTTTTACTGC CTTTGTCTT CACATATTTT TATAAATATC	2940
TTATGGAAAC ACAGGGGAAG GTCAACGATC AACAGGCATT AGTTCCTTTG ATGATGTGTT	3000
TACCTTTTTC TTTTCTTTG GCTGTTGGAA GTCCTATAAC TATTATCTTG TCTGAAGAAA	3060
AAGAAAAGTA CAATTACAA ACTCTTCTGT TGAGTGGTGT TAAAGGCTCC GAATACATTT	3120
TATCAACTAT GTTCTTCTCT TTTTGCTAA CTTTGTGAT TATGGGAACT ACTCCTCTTA	3180
TTTAGGAGT TACAATTGTA CATACTTTTA ATTATATTAC AATCGTCTT CTAACCTCTT	3240
TATCCATCAT TTTATTCTAT TTATTGATAG GTTTAACCGC GAAGAGCCAA GTAGTAGCTC	3300
AGGTTATCAG TCTTCTGCT ATGATTTTAG TTGCTTCTT ACCGATGCTA TCTGGTTTGG	3360
ATAAGACAGT TGCGAAGATA ACAGATTATA GTTTTATGGG ACTATTTACT AAGTTTTC	3420

769

CAAAATGGGA GGAATTTTCA TGAATAAAAA CTCTAATTCC TAATCTAACA CTACTTATTT	3480
GGATTGTTCT TCTATTAACT TTAATTACGA TAACTATTAG GAAAAAGAAA ATTTCTTAAT	3540
TGAGTTATTT TAATGATTAT AAACACAAGT GGAAGGAAA AAATGAAGTG ATCTTTTGA	3600
CAGCAATTCT ACAGAATAGT CTTATTGCTA TATTTTGATT TGAGTGTACG AAAAAAGAAA	3660
AATAACAATA GTGCTCATA TAATTGCAGA AGTTTGGGT GATAAGATAA CTGATAAATT	3720
GCAATAAAAA ATGCAACATT TTTAAATCTC CTCTATAAGT GCTTCAAAAA GTGCTTCAAA	3780
ACCTGTCTTG TAATCCAAGT ATTTTGGGG ACGGTGATTA ATAAGCTAGC AAAGCATCAT	3840
TAAGGATTTT TTCGGTAATT GTTGCCAAAT CGGTTTAAGA AAATACTCAC GAAGAAGTCC	3900
ATTCGCATTC TCATTACTTC CCCTTTGCCA AGATGAATAG GCATCCGCAA AATAAAACAG	3960
AATTCCTATT TGTTCATTA AAGGGTAACA AGCAAATCT TTTTCTCTGT CCGAAGTGAA	4020
AGTCTTTAAC TATTCTPTTG GAAAGAGTCT TGTGAGGTGT TCAATAGCAG TCAACATGGA	4080
TTTAGCTGTT TTTACTTGAC AAGTGCTAGT AGAAATAATA GAATAGTAAA AAACCTTAA	4140
AGCAGTCCAG AGAGGCAGCT AAGGTTAGAC GGTGAAAGGG TGGAGACTAC CCATTTTTCG	4200
TGGAACCTTG CTGTTGGCAG GTTCCTTTT TCGTGGCTTC TGTGGCCAG ACTCTCTCAC	4260
TAGTAAAGGT AAAAGGAGAA ACCTATGCGA GAACATCGTC CAATCATTCG TCTTGATTTT	4320
CCTAGTTTGG AGGCGGTCAA GGAATTTTGA GCTCTTTTCC CAGCAGAAGA AAGCCTTTAT	4380
CTCAAGGTAG GGTGGAGCT TTATTACGCA GCGGGGCTG AGATTGTGTC CTACTTAAAA	4440
GGTTTGGGTC ATAGTGTCTT TTTGGATCTC AAACCTCATG ACATTCCTAA TACAGTCAAG	4500
TCAGCCATGA AGATCTTGTC TCAGCTTGGT GTCGATATGA CTAATGTCCA TGCGGCTGGT	4560
GGTGTAGAGA TGATGAAGGC GGC GCGTGAA GGTCTTGGGA GTCAAGCCAA ATGATCGCT	4620
GTAACCTCAGC TCACATCAAC GTCAGAAGCT CAGATGCAGG AGTTTCAAAA TATCCAAACC	4680
AGTCTGCAAG AGTCTGTGAT TCACTATGCC AAGAAGACAG CTGAAGCTGG CTGGATGGT	4740
GTTGTTTGCT CGGCTCAGGA AGTACAAGTC ATCAAGCAGG CTACCAATCC AGATTTTATC	4800
TGTCTGACAC CAGGGATTCT TCCAGCTGGT GTTGCAGTTG GAGATCAAAA ACGAGTCATG	4860
ACACCTGCTG ATGCCATCA AATCGGCAGT GACTATATCG TAGTGGGACG TCCATTACC	4920
CAAGCTGAGG ATCCTGTTGC AGCTTATCAT GCCATCAAGG ATGAATGGAC ACAGGACTGG	4980
AATTAAAGAA CTAGATTAGA AAAATAAAG GAGAATACCA TGACACTTGC TAAAGATATC	5040
GCTAGCCACC TCTTGAAAAT CCAAGCCGTT TACCTCAAAC CAGAGGAACC CTTCACTTGG	5100
GCATCTGGTA TCAAGTCACC GATTTACACT GATAATCGTG TGACACTAGC CTATCCAGAA	5160

770

ACTCGTACCC TAATTGAAAA TGGTTTGTG GAAGCTATCA AAGAAGCCTT TCCTGAAGTA	5220
GAAGTGATTG CAGGAACTGC AACAGCAGGG ATTCCACACG GAGCCATTAT TGCTGATAAG	5280
ATGGACTTGC CTTTTCCTTA CATCCGTAGT AAACCAAAAG ACCACGGAGC TGGTAATCAA	5340
ATCGAAGGTC GCGTAGCTCA AGGTCAAAAA ATGGTAGTGG TTGAAGACCT TATTTCAACG	5400
GGTGGTTCAG TTCTTGAAGC TGTCAGCAGC GCCAAGCGAG AAGGAGCAGA TGTAAGTGGG	5460
GTTGTAGCGA TTTTCAGCTA CCAATTGCCA AAAGCAGATA AGAACTTTGC AGATGCTGGT	5520
GTAAACTTGT TGACGCTTTC AAATATAGC GAGCTTATCC ATCTAGCCCA AGAAGAAGGT	5580
TACATCACGC CAGAGGGCCT TGATCTTCTA AAACGCTTTC AAGAAGACCA AGAAAATTGG	5640
CAAGAAGGTT AGGTCAGTAA GATAAAGAGA GACGAGGCTA CCGAGTCTCT TTTACCATT	5700
TATTTAAAT ATGACAG	5717

(2) INFORMATION FOR SEQ ID NO: 103:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5558 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

CCTGGACTTT CTAAGTGAAT ATCTGCGAC CTGGATCAAG CCCTTCATGA GCATTTTCA	60
GAAGAAGAT TAGCTGGTCA CTTTCATGTC CTTCTATGGA CTTTCTTTAC AATGGCATTG	120
CTATCACACC CAATACCTAT CTAAGCGCCT GGTTCGTAAA CTTTATTGCA GCTCTTCCTC	180
TAAATTTCTT AATTGTTGAA CCAATTGCCC GTTTTATACT AAGTTCTTTT CAGAAACCAT	240
TTACTGGGGA AGAAGTTGAA GATTTTCAAG ATGATGATGA AATCCCAACT ATTATCTAAG	300
CCAGTTCTGT AAATACTAA TATTGAAAT CCACTTCCTT TTAGGGTGCA ATGGTTATAA	360
ATGAATTTT GAGAGGATCA GAATGAAAAA ACTAGCAACC CTTCTTTTAC TGTCTACTGT	420
AGCCCTAGCT GGGTGTAGCA GCGTCCAACG CAGTCTGCGT GGTGATGATT ATGTTGATTC	480
CAGTCTTCTG GCTGAAGAAA GTTCCAAAGT AGCTGCCCAA TCTGCCAAGG AGTTAAACGA	540
TGCTTTAACA AACGAAAACG CCAATTTCCC ACAACTATCT AAGGAAGTTG CTGAAGATGA	600
AGCCGAAGTG ATTTTCCACA CAAGCCAAGG TGATATTGCG ATTAACTCT TCCCTAACT	660
CGCTCCTCTA GCGGTTGAAA ATTTCCCTCAC TCACGCCAAA GAAGGCTACT ATAACGGTAT	720
TACCTTCCAC CGTGTATCG ATGGCTTTAT GGTCCAAACT GGAGATCCAA AAGGGGACGG	780
TACAGTGGT CAGTCCATCT GGCATGACAA GGATAAGACT AAAGACAAAG GAACTGGTTT	840

771

CAAGAACGAG ATTACTCCTT ATTTGTATAA CATCCGTGGT GCTCTTGCTA TGGCTAATAC	900
TGGTCAACCA AACACCAATG GCAGCCAGTT CTTTCATCAAC CAAAACCTCTA CAGATACCTC	960
TTCTAAACTC CCTACAAGCA AGTATCCACA GAAAATTATT GAAGCCTACA AAGAAGGTGG	1020
AAACCCTAGT CTAGATGGCA AACACCCAGT CTTTGGTCAA GTGATTGACG GTATGGATGT	1080
TGTGGATAAG ATTGCTAAGG CCGAAAAAGA TGA AAAAGAC AAGCCAACTA CTGCTATCAC	1140
AATCGACAGC ATCGAAGTGG TGA AAGACTA CGATTTTAAA TCTTAAAAAC CAAAAAATA	1200
CAGTATCCAC ATTCGGTACT GTATTCTTTT TACTCTCATT CTTAAGTTAA ATTATTAAAA	1260
TCCCATATTT GGTCTATCCA GCCTTCATAA AAGTCTGGCT CGTGGCAGAC CATAAGGATA	1320
GATCCCCTAT ATTCTTTGAG AGCGCGTTTG AGCTCATCCT TTGCATCCAC ATCCAAATGG	1380
TTGGTCGGCT CGTCCAGCAC TAAACGTTG TTTTCACGAT TCATCAAGAG ACAGAAACGA	1440
ACCTTGGCTT GCTCTCCCCC TGATAATACT TGAATCTGGC TTTCAATATG TTTGGTTGTC	1500
AAACCACAAC GGGCAAGGGC TGCACGGACT TCTGCTTGAT TAAGGGCAGG AAAGGCATTC	1560
CAGACAGCTT CAAGAGGAGT TTGGCGATTA CCGCCTTCTA CTTCTGCTC AAAATAACCA	1620
AGTTCTAAAT AATCTCCAGC CTCCACTTCC CCAGCGATTG GCGAGATAAT GCCCAAGAGA	1680
CTCTTCAAGA GAGTTGTTTT TCCAATACCA TTAGCACCAA TAATCGCAAC CTTTGTGATTG	1740
CGTTCGAAGG TAAGATTTAA AGGCTTAGTA AGAGGACGGT CGTAACCAAT TTGCAAGTTC	1800
TTGGCTTGGG AGATAAAGCG CCCTGGTGTA CGAGCTGGTT TGA AATCAA GGATGGTTTT	1860
GGTTTCTCAC TTTGGAGTTC GATAATATCC ATCTTATCCA ATTTCTTTTG ACGAGACATA	1920
GCCATATTAC GAGTTGCAAC ACGGGCTTTA TTACGAGCCA CAAAGTCCTT GAGGTCTGCA	1980
ATCTCTTTCT GCTGGCGTTC GTAGGCTGCC TCTAGCTGAG ATTTCTTCAT AGCATAAACT	2040
TCTTGGA ACT GGTAGTAGTC ACCAGAGTAA CGCGTCAGCT GTTGATTTTC CACATGATAG	2100
ACAATATTAA TAACGTCATT GAGGAATGGA ATATCGTGCG AAATGAGAAC AAAGGCATTC	2160
TCATAGTTTT GGAGATAGCG CTTGAGCCAA TCAATATGCT CAGCATCCAA GTAGTTGGTC	2220
GGCTCGTCCA ACAGCAAGAT ATCAGGCTTT TCAAGGAGAA GTTTTGCCAA AAGCACCTTG	2280
GTCTTTTGCC CACCTGACAA AGAAGTTACA TCCGTATCCA TGCCAAAGTC CATAACACCA	2340
AGAGCACGCG CTA CTCTGTC AATCTTAGCA TCCAAGGTAT AGAAATCACG ACTCTCCAGA	2400
CGGTCTTGAA GTTCTCCTAC TTCTTCCATG AGAGCATCAA CATCCGCGCC GTCTTCAGCC	2460
ATTTTCATAT AGAGGTCATT GATACGAGCT TCAGCTTTGA AAAGCTCATC AAAAGCCGTA	2520
CGGAGAACAT CACGCACCGA CTGTCTTTCA GCAAGGACAG AGTGCTGATC CAAGTAACCA	2580

772

GCCGTCACAT ATTTGGACCA CTCAACCTTT CCTTCATCTG GCAGCATTTT ACCAGTCACG	2640
ATACTCATAA AGGTTGATTT TCCTTCACCA TTGGCACCGA CCAGGCCGAT ATGTTCTCCC	2700
TTGAGGAGAC GGAAGGACAC ATCTTCAAAA ATTGCACGGT CACCAAAACC GTGACTCAGA	2760
TTTTTAACCT TCAAAATACT CATTTTAATT CCTTACCTTG TTTTATGTA ATCGTTTATA	2820
AAGGAGCCAA GCCAGATAGC CACCCAAAGT GTTGGTCCAC AAATCATCAA TCTCAAAGAC	2880
GCGATTGAAA TCAAAGAAAA AGTCCAAGAT TAATTGCGTA CACTCGATTG CAAGACTCAC	2940
AAGAAACTA AAAAGAAGGA CCTTTTGTG TTTCCGCAA TTTGGAAATA GATAAAGGAG	3000
TTGAGAAATC AGAGGAAAA ACAAGAAGC ATTGAGGATA TTTGTAAAA AAATCCAACA	3060
TAATTGTCCA ATGTCACTCA CTTGCGCCAG TTTCCAGAGA GAATTGAAAG GAGTCAAAAG	3120
AAAACCAGG CGTCCAAGAT GCTGAATACC TGGAGTTCCC ACTCCCACGG TAGATTGTTC	3180
TTGAGGAGTA AAGCAAAAC AGACAATGCA AATGCTATAG AAAATGACTC CCCAGACCAA	3240
AATATGATTA TAAGTCTTCT TCATCATTAA GGATTTACCG CTGCGACTGC CTTCTGGCGG	3300
TCACGTTTCA TTGTGTTAGA GCGCAATTGT CCACAAGCTG CGTCAATATC TGTACCATGC	3360
TCTTGACGAA CCACACAGTT GACCCCTTTT TTCTTAAGCG TATCATAGAA AGCCAACACG	3420
CACTCTTTGG GACTACGGCT ATATTGGTCA TGCTCACTAA CTGGGTATA AGGAATCAAG	3480
TTTACATAAG ACAATTTCTT GATGTTCTTG AGCAATTCAG TCAATTCCAA GGCTTGTCT	3540
ACACCGTCG TGACTTCATT AAGCATGATA TATTCAAAGG TTACACGACG GTTGTGTGTC	3600
TCAATGTAGT ATTCAATAGC AGCAAAGAGT TTTTCAATCG GAAAGGCACG GTTAATCTTC	3660
ATGATACTTG AACGAAGTTC ATTGTTAGGT GCGTGAAGAG ACACGGCAAG ATTGACCTGA	3720
ACCCCTTCAT CAGCAAAGTC ACGAATTTTA TGAGCCAAAC CTGAGGTTGA AACCGTGATG	3780
TGACGAGCAC CGATAGCCAT TCCTTTATCA TCATTGATAG TACGAAAGAA ATTCAAGACA	3840
TTGTGTAAAT TATCAAAGGG CTCACCGATT CCCATGACAA CGATATGGCT GATGCGTTCA	3900
TCCTGACCAC GTCATCAAAA GTATTTCTGA ACCAGCATGA TTTGCGCTAC GATTTACCG	3960
TTATTGAGGT CACGTTGCTT CTTAATCAAA CCAGAGGCAC AGAAGGTACA ACCGATATTA	4020
CAGCCGACCT GAGTGGTCAC ACAGACAGAT AAACCATAGT GTTGACGCAT GAGTACAGTC	4080
TCAATTAACA TACCGTCGGG CAATTCAAAG AGATATTGTA CTGTACCATC AGCAGACTCT	4140
TGCACAATAC GTTGTTTCAA GGGATTGACC ACAAACTGGT CATTGAGCTT AGCAATCAAA	4200
TCCTTGAAA GGTGGTCAT TTCTTCAAAT GACTGCACAC GTTTACGGTA GAGCCATTCC	4260
CAGATTTGAT CTGCACGAA TTTCTTTTCT CCCTGCTCCA ATACCCATTC CTGCATGGTT	4320
TGATGTACCA AACTATGAAT TGAGGGTTTC ATTTCTTCTC CTTATTCTCT ACTCACTTCT	4380

773

GACGAATGAC AAAATGACGT TGTCCTTGT CGTCTTCTG ACGACGCTA TTTTCTTAT	4440
CTGCATTCTGA CTTTCGTTTA GTTTGAGTCG GTTCTTTCC TTTTCTAGAA GGTGTTCTT	4500
CTTCCGTCTT ACGCATTTT TGTCAAATG ATGCTCGCTT AGGGGCTTCA TTTTCTAAGA	4560
CAAAATAGGC ACAACCATAA CTACAATACT CTAAAAGGTA GTCTTGTAAG CGACTGATTT	4620
TTTCAAGTTT TTTCTCTGTT CGGTCATCCT TGTAAAAACC TCGTAGGCGA AGCTGTTCTG	4680
TGCTCCAGTC CCCACGATA TAATCAAAC TGGTTAATAC TTCTGAAAAA CGCTGATTAA	4740
AAGTCGTCAC ATCAAAGGCA TCCTTGATAT TTTCAACCAA GGAAAAAGCT ATCCCTTCCG	4800
TTTCGACCTT GTCCCCGTGT AAATGGAAC CCGGACCAGG AAACCTGTGA TAGTTGTATA	4860
ATTGAGGTGC AATTTCTTTT CGCATAGATA TCCTTTTTC ACGATTACTT AATACTTTAT	4920
TCTACCATAA TTTCTAGCAG TTAGCAGTT TCTCATAAAA ATGAAAAAG TCTGACGATT	4980
TTGTCAGACC AGAATCTTAT AACCTAAAA GAGAAGAACA ATTCTTCCCT CCAACTATCA	5040
TTATTTAGCA GCTGCGTACA ATTCATCTAC TTTATTCCAG TTGATTACTG AAAAGAAAGC	5100
TTTGATGTAG TCAGGACGCA CGTTGCGGTA TTTCACGTAG TAAGCATGTT CCCAACGTC	5160
CAAGCCCAAG ATTGGTTTTT TACCTTCTGA GATTGGTGTG TCTTGGTTG CTGTTGAAGT	5220
CACTTCAAGT TTCCCTTCTT TGTGACAAC CAACCATGCC CAACCTGAAC CAAAACGAGT	5280
TGTTGCTGCT GCAGTGAAGG CTGCTTGGA TTTCTCAAAT GAACCAAATG TTGCATCGAT	5340
TGCTGCTGCC AGTTCTGCTG AAGGAGCTGT TTTCTCGGA GTCATCAATT CCCAGAAAAG	5400
AGCGTGGTTC AAGTGCCGC CACCATTGTT GATAAGTGCT TGACGGATAT CAGCTGGGAT	5460
AGATTCTACA TCAGCAAGCA AGGCTTCAAG GTCTTCACCG ATTTCAGGGT GTTTTCTAA	5520
AGCTGCATTG GCATTGTTGA CATAAGTTG ATGGTGTT	5558

(2) INFORMATION FOR SEQ ID NO: 104:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6735 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 104:

GGAATTGTAA ATATCATATT GTTTTGCAC CCAAATATCG TCGTCAAATC ATTTATGGCA	60
GATACAAAGC TAGTATCGGA AGAATCATAC GTGACTTATG TGAGCGTAAG GGTGTAATAA	120
TCCATGAAGC GAATGCTTGT TCAGACCATA TTCACATGCT TATCAGTATT CCTCCGAAAC	180

774

TTAGTGTTC	GTCCTTTATG	GGCTATTTAA	AGGGCAAGAG	CAGTTTGATG	ATTTTGTGATA	240
AGCATGCCAA	TTTAAATAC	AAATATGGCA	ATCGCAAGTT	TTGGTGTAGA	GGCTATTATG	300
TAGATACGGT	AGGCCGTAAT	CAGAAAGTGA	TAGCTGAATA	TATTCAGAAT	CAATTACAAG	360
AAGACAGAGT	AGCAGACCAG	CTCACGTTAT	TCGAGTCAGT	AGATCCGTTT	ACTGGCGAAA	420
TAAATAAGAG	GAAGTAACCTA	AGGTGCTTTA	GCACCTGCTC	GGGAAAGTGG	TGCGCGAGGA	480
AGCTATTTTCG	GTGGGCCTTT	GGCCCTGGCC	GGTAGAAGCG	GCTTATAGCC	GCAGAACAAA	540
CCACCAGTTC	ACACTGGTGG	TTTTGATTTA	AAAACTTGA	TACATAAAAA	TAAAAGTCTA	600
TATAAAGGAT	GGTAAATTC	CTGTTGTCCG	ATTTGGACAA	TATCCTAAAT	AGTTACAATA	660
TATGGTCTAT	ACTTTTTCTT	AGGAGAAAGC	TAGATGTACA	GACGTTTGAG	AGATTTGAGG	720
GAGGATCATG	ATCTGCCCCA	AAAGCAAATA	GCTACAATAC	TTTCGTTTAC	AAATTCAGCT	780
TATGCCAAAA	TTGAACGGGG	TGAGCATGCG	TTGACGGCTG	ATGTATTGGT	TAAACTCTCA	840
GATTTCTATG	ACGTCACTAC	AGACTATTTA	TTGGGATTAA	CTGATTTTCC	TGATAAAATT	900
CGCTTTAGAA	AATAATCTCC	TCAATTTTCA	AGAGTTTGAA	AATGAGTGAG	ATTTTATTAT	960
TGCCCTTTGA	CAACTGAATA	GCCTAAATG	GTACTTTCCT	CATTTGTGGA	GCAAATTTGA	1020
ATGGCTCGCC	ATGATAAGAG	CGATTTTAAA	ATCATCAATA	AAATAGAGCG	ATACTTTATA	1080
TGCCATGATA	CAAATGATAT	ACAATGATAC	TTCTGACCGT	TCAGCCTGCC	AACGTAAAAG	1140
AGCAGCAAGT	GAAATCTCTA	TGATGACTTC	ATCAGTCATG	CCACGTTGAA	TGTGTGAGTT	1200
TGTTAGATAA	ACGCAATTAA	TCCTCAAAAG	GTTCCCGGAA	CCTTTTGAGT	TCTACAGACG	1260
CATCACGTGG	AGTGTGTAAG	CTTGTGTGTA	AAAGCGTAAA	AACCTTGGAA	CGAAAGGAAT	1320
AATAGACTTT	CTGCGAAACA	AAAATATAAT	ACAATAAAAC	TATGAATGAT	GAAGCAAGTA	1380
AACAATTGAG	CGATAGCCGT	TTCAAGATCC	TTGTAGGTGT	TCAGCGCACG	ACTTTTGAAG	1440
AGATGTTAGC	TGTGTTAAAA	ACAGCTTATC	AACGTAAACG	CGCAAAAGGT	GGACGAAAAA	1500
GCAAATTAAG	CCTAGACGAT	CTCCTTATGG	TAACATTCTA	ATACATGCGA	GAATAGAGCA	1560
CTTATGAACA	AATTGCGGCT	GATTTTGGCA	TTACGAAAG	CAACTTAATC	CGTCGGAGTC	1620
AATGGGTTGA	AGCAACTCTT	ATTCAAAATG	GTTTACGAT	TTCAAAATCT	GCCTTAATTC	1680
TGTA AAAACA	GTA AAATTCG	AAGGATTGTA	AGGTAAGAGT	TTTTTCTTTT	CTGAAAAAAT	1740
GGTATAATAG	CAATCAAAAC	TAGAAAATAA	AACGGAATTT	GGAACAGATT	TGTCGTGATC	1800
CTAGTAGAGT	GGTGATACTA	TGAAGATTAG	TAAGAGGCAC	TTATTAAATT	ATTCCATCTT	1860
GATTCCTTAC	TTGCTTTTAT	CTATTTTGGG	CTTGATTGTG	GTCTATTCTA	CCACCAGTGC	1920
TATTTTAATT	GAAGAAGGCA	AGAGCGCCTT	GCA GTTG GTT	CGAAACCAAG	GAATCTTTTG	1980

775

GATTGTTAGT TTGATACTGA TTGCCTTAAT TTATAAATTG AGACTAGATT TTTTGAGAAA	2040
TGAGCGACTA ATCATTTTAG TTATATTAAT AGAAATGCTT TTATTGTTCT TGGCTCGTTT	2100
TATTGGTATT TCCGTAAACG GGGCATACGG TTGGATTTCG GTTGCAGGAA TAACTATTCA	2160
GCCAGCTGAG TACTTAAAA TCATTATTAT TTGGTATTTA GCTCACCGAT TCTCCAAACA	2220
GCAAGAAGAA ATAGCTACTT ATGATTTTCA AGTTTTGACT CAAAATCAAT GGCTTCCCCG	2280
TGCTTTTAAT GATTGGCGAT TCGTTCCTCT AGTTCTGATT GGAAGTTTGG GAATTTTCCC	2340
TGATTTAGGA AATGCGACTA TTTTAGTCTT GGTTCCTTG ATTATGTATA CAGTTAGTGG	2400
AATCGCTTAT CGCTGGTTTT CAACCATCTT GCGCTCGTA TCTGCCGCTT CTGCTTTGT	2460
CTTGACCACT ATCAGCCTAA TCGGTGTTGA GACCTTTTCA AAAATCCAG TATTCGGCTA	2520
TGTAGCCAAG CGCTTTAGTG CCTTTTTTAA TCCTTTTGCC GATCGTGTG ATGCAGGTCA	2580
CCAGTTAGCT AATTCCTATT TTGCCATGGT CAATGGCGGT TGGTTTGGTC TAGGTCTTGG	2640
AAACTCGATT GAAAAACGAG GTTATTTGCC AGAAGCTCAT ACAGACTTTG TCTTTTCTAT	2700
CGTGATTGAA GAATTTGGCT TTGTTGGTGC CAGTCTTATT TTAGCTCTCT TGTTTTTCAT	2760
GATTTTGGCG ATTATCTTGG TCGGTATCCG AGCGGAGAAT CCTTCAATG CCATGGTTGC	2820
ACTCGGTGTC GGAGGGATGA TGTGGTTTCA GGTATTGTG AATATCGGAG GGATTTCGGG	2880
CTTGATTCCA TCTACAGGAG TGACTTTCCC CTTCTTATCC CAGGGTGAA ATAGTCTTCT	2940
AGTCTTATCA GTGGCAGTAG CCTTGTCTT AAATATTGAT GCCAGTGAAA AACGCGCTAA	3000
ATTGTACCGA GAATTGAAA ATCAACCAAT GAACCTCTG TTGAAGTAGG ATAAAGAAAG	3060
GATAGTTTAT GTCTCTTCAA AAATTAGAAA ATTATAGTAA TAAAAGTGT GTGCAAGAAG	3120
AAGTCTTGAT TCTAACAGAA TTACTGGAAG ATATTACTAA AAATATGCTT GCCCAGAGA	3180
CCTTTGAAAA AATAATACAG TTGAAAGAAT TATCAACGCA GGAAGATTAT CAAGGTCTAA	3240
ACCGTCTAGT GACTAGCTTA TCAAATGATG AAATGGTCTA TATTTACGC TATTTCTCTA	3300
TCTTGCTCT TTTGATTAAT ATTCAGAGG ATGTGGATT AGCTTATGAA ATCAATCATC	3360
AAAATAATAT TGATCAGGAC TATTTAGGTA AATTATCTAC AACGATTAAA TTGGTAGCAG	3420
AAAAGGAAAA TGCCGTTGAG ATCCTAGAAC ACTTGAATGT TGTCCCTGTT TTGACAGCCC	3480
ATCCAACACA AGTGCAACGC AAAAGTATGT TGGATTTAAC AAATCATATT CATAGTCTTT	3540
TGCGTAAATA CCGTGATGTT AAGTTGGGGT TGATCAATAA AGATAAATGG TACAATGATT	3600
TGCGTCGTTA CATCGAAAT ATCATGCAGA CAGACATGAT TCGTGAGAAA AAATTAAAAG	3660
TGACTAACGA AATCACGAAT GCTATGGAAT ATTATAACAG CTCCTTTTGG AAAGCTGTAC	3720

776

CTCATTGAC GACGGAGTAT AAGCGCTTAG CGCAAGCGCA TGGTCTGAAT TAAAAACAGG	3780
CTAAACCAAT CACCATGGGT ATGTGGATAG GTGGTGACCG TGATGGAAAT CCATTTGTTA	3840
CAGCAAAGAC CTTGAAGCAG TCTGCACTCA CTCAGTGTGA AGTCATCATG AACTACTATG	3900
ATAAAAAGAT TTACCAACTT TATCGTGAAT TTTCTCTTTC AACTAGCATT GTCAACGTCA	3960
GCAAGCAAGT CAGAGAAATG GCTCGTCAAT CCAAGGATAA CTCGATTAC CGCGAAAAAG	4020
AGCTTTACCG TCGTGCCTTG TTTGATATTC AATCAAAAAT TCAGGCAACT AAAACCTATC	4080
TGATTGAGGA TGAAGAAGTT GGGACTCGTT ATGAAACCGC CAATGATTTC TACAAGGATT	4140
TGATTGCCAT TCGAGATICT CTACTAGAAA ATAAGGGCGA GTCCTTGATT TCAGGTGATT	4200
TTGTGGAATT ATTGCAGGCA GTAGAGATAT TTGGTTTTTA CTTAGCATCA ATTGATATGC	4260
GACAAGACTC TAGCGTCTAT GAAGCCTGTG TGGCAGAACT CTTGAAATCA GCAGGAATTC	4320
ATTCTCGTTA TAGCGAGTTG AGCGAAGAAG AAAAGTGTGA CCTTCTCTTG AAAGAAATTAG	4380
AAGAAGATCC CCGAATTCTT TCTGCGACTC ACGCAGAAAA ATCAGAATTA TTAGCAAAAG	4440
AATTAGCTAT TTTTAAGACG GCTCGTGTTT TGAAAGATAA GTTGGGAGAT GATGTCATCC	4500
GTGACACCAT CATTTACAT GCAACCAGCC TTTCTGATAT GCTAGAATTA GCTATTCTGT	4560
TAAAAGAAGT AGGACTGGTG GATACGGAAA GGGCGCGTGT TCAGATTGTT CCCCTTTTTG	4620
AAACAATTGA AGACTTGGAT CATTCAGAGG AAACAATGAG AAAATATCTT TCTCTTAGCC	4680
TTGCCAAAA ATGGATTGAC TCACGAAATA ACTACCAAGA AATCATGCTT GGCTACTCTG	4740
ACAGTAATAA AGATGGCGGT TACTTGTCTAT CATGTTGGAC CCTCTACAAG GCTCAACAAC	4800
AATTGACTGC TATTGGAGAT GAATTTGGCG TTAAGGTTAC CTTCTTCCAT GGTCGTGGTG	4860
GTACTGTCCG TCGTGGTGGT GGGCCAACTT ATGAAGCCAT TACATCTCAA CCGCTCAAGT	4920
CTATCAAGGA TCGTATCCGC TTGACGGAGC AGGGTGAAGT AATTGGGAAT AAATACGGTA	4980
ACAAAGACGC CGCTTACTAT AACCTTGAAA TGCTAGTATC GGCAGCTATT AACCGTATGA	5040
TTACTCAGAA GAAGAGCGAT ACCAATACCC CAAATCGTTA TGAAACCATT ATGGATCAAG	5100
TAGTGGACCG TAGTTACGAT ATCTACCGTG ATTTGGTCTT TGGAATGAG CATTTCTATG	5160
ATTATTTCTT CGAGTCAAGT CCAATCAAGG CTATTTCAAG TTTTAATATT GGTCTCTGTC	5220
CAGCCGCTCG TAAGACTATT ACTGAAATCG GTGGTTTGGC TGCCATCCCT TGGGTATTCT	5280
CATGGTCACA GAGTCGTGTT ATGTTCCCTG GATGGTACGG GGTGGTTCA AGCTTCAAGG	5340
AATTTATCAA TAAAAATCCA GAGAATATTG CTATCTTACG AGATATGTAC CAAAATTGGC	5400
CTTCTCTCCA ATCGCTTCTT TCAAATGTTG ATATGGTTTT GTCAAAATCA AATATGAATA	5460
TTGCTTTTGA ATATGCTAAA CTTTGTGAAG ACGAGCAAGT TAAGGCCATC TATGAGACTA	5520

777

TTTAAATGA ATGGCAAGTT ACTAAGAACG TTATCTTGGC TATTGAAGGA CATGACGAAC	5580
TCTTAGCTGA CAATCCATAT CTAAAAGCTA GTCTGGATTA CCGTATGCCT TACTTTAATA	5640
TTCTCAACTA TATTCAAGTTG GAGTTGATTA AACGCCAACG TCGTGGAGAA TTGTCCAGTG	5700
ATCAAGAACG ATTGATTCAT ATCACCATCA ACGGAATTGC GACAGGATTG CGTAATTCAG	5760
GTTGATAATT TTCAAGAGTG AATGCTAAAA GTGAATATCA AAAAAATTCT AATAGACTAT	5820
TGACAAGTAG TTTAAAAATG ATATAATTTA ACCATTGAGA AAAGTAATCA TACAAACTTT	5880
TTAGAGAGTC TGTGGTAGCT GAAAACAGAT AAGTGGCAAT GATGAAAATT GGGCTGAATG	5940
CTATTTAGAA TTTGAAATTA TAAAAATTCG GTAAGCACAC CTTACAGTGC ATCTCGTTAT	6000
TGCGAGACTG AGCGATAGGG AAATTCCCTA TAATTGAGGT GGTACCGCGC ATCGACGTCC	6060
TCACACAAGT TTTTGTGTG AGGATTTTTT TGATGGAGGT TAGTATGGAA AGAAAACGAT	6120
GGCGTCGCTT GTTTAGATAA GTGAAATATG TTAAAGGAAA TAAAAAGGAG AAACAGAATG	6180
AAAAATAAAC GTTTAATTGG AATTATTGCT GCATTAGCAG TCTTAGTAGC AGGAAGCTTG	6240
ATTTATTCTT CAATGAATAA ATCAGAAGCT CAGAATAATA AGGATGAGAA GAAAATAACC	6300
AAGATTGGTG TGCTTCAATT TGTGAGCCAT CCATCCCTTG ATTTGATTTA TAAAGGGATC	6360
CAAGATGGAC TTGCAGAAGA AGGATATAAA GATGATCAAG TTAAAATTGA TTTTATGAAC	6420
TCAGAAGGTG ACCAAAGTAA GGTTCGCACA ATGAGTAAAC AATTGGTTGC AAATGGGAAT	6480
GACCTTGTGG TTGGTATCGC AACACCAGCA GCCCAAGGGT TGGCTAGTGC AACAAAAGAC	6540
CTACCGTTA TCATGGCCGC TATTACAGAC CCAATTGGTG CTAACCTGGT TAAAGATTTG	6600
AAAAAACCAG GTGGCAACGT TACAGGGGTA TCTGACCACA ATCCAGCTCA ACAACAAGTT	6660
GAACTCATCA AGGCTCTGAC ACCGAATGTG AAAACAATCG GAGCTCTTTA CTCAGTAGC	6720
GAAGACAATT CAAAA	6735

(2) INFORMATION FOR SEQ ID NO: 105:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6516 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

CTAGAGGATC CCAGCAGGTA AATTGGCTTC AGCTGGCAAA AAAGTTGCCC TCGTTGAACG	60
CAGCAAGGCT ATGTACGGTG GAACTTGTAT CAACATTGGT TGTATCCCAA CTAAAACCTT	120

778

GCTAGTTGCT GCTGAAAAGG ACTTGTCCTT TGAAGAAGTC ATTGCTACTA AAAACACGAT	180
CACTGGTCGC CTCAACGGTA AAAACTATGC GACTGTTGCT GGTACAGGCG TAGATATCTT	240
TGATGCGGAA GCTCACTTCC TTTCAAATAA AGTCATCGAA ATCCAAGCTG GTGATGAAAA	300
GAAAGAACTG ACTGCTGAAA CAATCGTCAT CAACACTGGT GCTGTTTCAA ACGTCTTGCC	360
AATCCCTGGA CTGCTACAA GCAAAAACAT CTTTGACTCA ACAGGTATCC AAAGCTTGGA	420
CAAATTACCT GAAAACTTG GAATCCTTGG TGGCGGAAAT ATCGGTCTTG AATTGCCCG	480
CCTTTACAAC AAACCTGGAA GCAAGGTCAC AGTCCTAGAT GCCTTGATA CATTCTACC	540
TCGTGCAGAA CCTTCCATCG CAGCTCTTGC TAAACAATAC ATGGAAGAAG ATGGCATTGA	600
ATTGCTTCAA AATATCCATA CTAAGTAAAT CAAAAACGAT GGTGACCAAG TGCTTGTCTG	660
AACTGAAGAC GAAACTTACC GTTTCGACGC CTTTCTCTAC GCAACTGGAC GCAAACCAA	720
TGTAGAACCA CTTCAACTTG AAAATACAGA TATTGAACTA ACTGAACGTG GTGCTATTAA	780
AGTAGACAAA CACTGTCAA CAAACGTTCC TGGTGTCTTT GCAGTTGGAG ATGTCAACGG	840
TGGCCTTCAA TTACTTACA TTCACTTGA TGACTTCCGT GTTGTTTACA GCTACCTTGC	900
TGGAGATGGC AGCTATACAC TTGAAGACCG TCTCAATGTG CCAAATACTA TGTTTCATCAC	960
ACCTGCACTT TCACAAGTTG GTTTGACTGA AAGCCAAGCA GCTGATTTGA AACTTCCATA	1020
CGCTGTTAAG GAAATCCCCG TTGCAGCAAT GCCTCGTGGT CACGTAATG GAGACCTTCG	1080
CGGTGCCTTC AAAGCTGTTG TCAATACTGA AACAAAAGAA ATTCTTGGAG CAAGCATCTT	1140
CTCAGAAGGT TCTCAAGAAA TCATCAACAT CATCACTGTT GCTATGGACA ACAAGATTCC	1200
TTACACTTAC TTCACAAAAC AAATCTTAC TCACCAACC TTGGCTGAGA ACTTGAATGA	1260
CTTGTTTGCG ATTTAAGTTG AGATTTAATC GTATCGAACA GCCCTCTTTG GGCTGTTTTT	1320
ACTTCTGCGG AATCTCAAAT CTGTCTTTCT CCTCTTTTAT GATATAATAG AAACATGAAC	1380
TTAAAACTA CTTTGGGCCT TCTTGCTGGG CGTCTTCCC ACTTCGTTTT AAGCCGTCTT	1440
GGACGTGGAA GTACGCTCCC AGGGAAGTC GCCCTTCAAT TTGATAAAGA TATTTTACAA	1500
AACCTAGCTA AGAACTACGA GATTGTCGTT GTCACCTGGAA CAAATGGAAA AACCTGACA	1560
ACTGCCCTCA CTGTCGGCAT TTAAAAGAG GTTTATGGTC AAGTTCTAAC CAACCCAAGC	1620
GGTGCCAACA TGATTACAGG GATTGCAACA ACCTTCCTAA CAGCCAAATC TTCTAAAACT	1680
GGGAAAAATA TTGCCGTCCT CGAAATTGAC GAAGCCAGTC TATCTCGTAT CTGTGACTAT	1740
ATCCAGCCTA GTCTTTTGT CATTACTAAT ATCTTCCGTG ACCAGATGGA CCGTTTCGGT	1800
GAAATCTATA CTACCTATAA CATGATATTG GATGCCATTC GGAAAGTTCC AACTGCTACT	1860
GTTCTCCTTA ACGGAGACAG TCCACTTTTC TACAAGCCAA CTATTCCAAA CCCTATAGAG	1920

779

TATTTTGGTT TTGACTTGGA AAAGGGACCA GCCCAACTGG CTCACTACAA TACCGAAGGG	1980
ATTCTCTGTC CTGACTGCCA AGGCATCCTC AAATATGAGC ATAATACCTA TGCAAACTTG	2040
GGTGCCATA TCTGTGAAGG TTGTGGATGT AAACGTCCTG ATCTCGACTA TCGTTTGACA	2100
AAACTGGTTG AGTTGACCAA CAATCGCTCT CGCTTTGTCA TAGACGGCCA AGAATACGGT	2160
ATCCAAATCG GCGGGCTCTA TAATATCTAT AACGCCCTAG CTGCTGTGGC CATCGCCCGT	2220
TTCTTAGGTG CCGATTCGCA ACTCATCAA CAGGGATTG ACAAGAGCCG TGCTGTCTTT	2280
GGACGCCAAG AAACCTTTCA TATCGGTGAC AAGGAATGTA CCCTTGCTCTT GATTAAAAAT	2340
CCAGTCGGTG CAACCCAAGC TATCGAAATG ATCAAACTAG CACCTTATCC ATTTAGCCTA	2400
TCTGTCTCC TTAATGCCAA CTATGCAGAT GGAATTGACA CTAGCTGGAT CTGGGATGCA	2460
GACTTTGAAC AAATCACTGA CATGGACATT CCTGAAATCA ACGCTGGCGG TGTTCGTCAT	2520
TCTGAAATCG CTCGTGCCT CCGAGTGACT GGCTATCCAG CTGAGAAAAT CACTGAAACG	2580
AGTAATCTGG AGCAAGTTCT CAAGACCATT GAGAATCAAG ACTGCAAGCA TGCTTATATT	2640
CTGGCAACTT ATACTGCCAT GCTGGAATTT CGTGAAGTGC TGGCTAGTCG TCAGATTGTT	2700
AGAAAGGAGA TGAACATAAG GTTTATACTT CACTTTCCTC AAAAGATGGC AATTACCCCT	2760
ATCAGCTCAA CATTGCCCAC CTCTACGGAA ATCTCATGAA TACTACGGGG ACAATGGAAA	2820
CATCCTCATG CTCAAGTATG TGGCTGAAAA ACTGGGAGCC CATGTGACCG TTGACATCGT	2880
TTCTCTCCAT GATGACTTTG ATGAAAATCA CTACGACATC GCCTTTTTCG GTGGTGGTCA	2940
AGACTTTGAA CAAAGTATCA TTGCAGACGA CCTACCTGCT AAAAAAGAGA GCATTGACAA	3000
CTACATCCAA AACGACGGTG TAGTTCTGGC TATCTGCGGT GGTTCCTAAC TATTGGGTCA	3060
ATATTATGTT GAAGCTTCAG GAAAACGTAT CGAAGGGCTA GGGGTTCATG GACACTACAC	3120
GCTCAACCAG ACCAATAACC GTTTTATCGG TGACATCAAG ATTCACAATG AAGATTTCGA	3180
TGAAACCTAC TATGGATTTG AAAATCACCA AGGTCGTACC TTCTCTCTG ATGACCAAAA	3240
ACCGCTGGGA CAGGTGTCT ATGGAAATGG AAACAACGAA GAAAAGGTCG GTGAAGGGGT	3300
TCATTATAAG AATGCTTTTG GTTCTACTT CCACGGGCCT ATCTCTCTC GTAATGCCAA	3360
TCTGGCTTAT CGCCTAGTTA CTACTGCCCT CAAGAAGAAA TATGGTCAGG ACATCCAAT	3420
CCCTGCCTAT GAGGACATTC TCAGCCAAGA AATCGCTGAA GAGTACAGTG ACGTCAAAAG	3480
CAAGGCTGAC TTTTCTTAAA CAAAGGAAAA TGATATCAA GAACTCCGTT ATCTTGTCTGG	3540
AGTTTTTTGT CTTTCTTTT ACCCTTCTCC CTGTCATTTT CTCTCATTTT TTGCCAAAAT	3600
AGAGGGGTAG AAAGAAGGTA GCATATGTCT AAATTACAAC AAATCCTAAC ATATCTTGAA	3660

780

TCAGAAAAAC TAGACGTCGC TGTCGTATCT GACCCCGTCA CAATCAATTA CCTCACTGGT	3720
TTTACAGTG ATCCCCATGA ACGCCAAATG TTCCTCTTTG TCCTAGCAGA TCAGGAACCT	3780
CTCCTCTTTG TCCCAGCTCT TGAAGTAGAA CGTGCAAGTA GCACCGTTTC CTTCCCAGTA	3840
GTGGGCTATG TCGATTCTGA AAATCCATGG CAAAAAATCA AACATGCTCT TCCACAACCT	3900
GACTTCAAAC GTGTCGCTGT TGAGTTTGAC AATCTCATCT TGACCAAATA CCATGGTTTG	3960
AAAACAGTTT TTGAGACTGC TGAGTTTGAC AACCTCACTC CTCGTATCCA ACGCATGCGC	4020
CTCATCAAAT CAGCTGATGA AGTGCAAAAA ATGATGGTTG CAGGTCTTTA TGCTGACAAG	4080
GCTGTTTCATG TTGGTTTGA CAATATTCTT CTTGATAAGA CTGAGACAGA TATCATCGCA	4140
CAAATCGACT TTGCCATGAA ACGTGAAGGT TATGAAATGA GCTTTGATAC CATGGTCTTG	4200
ACTGGTGATA ATGCTGCGAA TCCACACGGC ATTCCAGCAG CTAATAAGGT TGAAAATGAT	4260
GCTCTTCTCC TCTTTGACCT GGGTGTCTG GTCAATGGCT ATGCGTCAGA TATGACTCGT	4320
ACAGTCGCTG TCGGCAAACC AGACCAATTC AAGAAAGATA TTTACAACTT GACTCTTGAA	4380
GCCCAACAAG CTGCTCTGA CTTTATCAAG CCAGGTGTGA CTGCTCATGA AGTGGACGGC	4440
GCTGCCCGTG AGGTCATCGA AAAAGCTGGT TATGGTGAGT ACTTCAACCA CCGTCTCGGG	4500
CATGGTATCG GTATGGATGT CCATGAATTC CCATCTATCA TGAAGGAAA CGACATGGTC	4560
ATCGAAGAAG GCATGTGCTT CTCTGTTGAA CCAGGTATCT ATATCCCTGG TAAAGTCGGT	4620
GTTGCTATTG AAGACTGCGG TGTGTTTACC AAGGATGGCT TCAACCTCTT TACAAGCACC	4680
AGCAAAGATT TGCTTTATTT TGATTAACT ATATAGCCCC TATGCTTTCC TTTCAAATA	4740
TCTAGGGGCT ATTTTATTGT CATTTTCTG CTATTATGCT AAAGAAATTG GCTGCAATAA	4800
TCTAACCCCTA AGTGTCTGGA ATGATAACGA GGGTGCTCTC CGCTTTTATC AAAGACAAGG	4860
GATGAAACCC CAAGAAACAA CAATGGAAAT GATAATTGAT TAAGAAGTCA TCTATCAAAA	4920
GATGTTAGAA AAAGTTCAAT TTTACTAGAA AATGAGGAAA ATCTCCCCAC AATAAACGC	4980
ATAGTATCAG GTATTGTGTA CTGACCCCAA ACAGTTAGAC AATTAATTTA TCCGAAGGAT	5040
TTAGTTCTGT ACTGCACAGG ACTAAGTCCT TTTAGTTTGA CCTTAATTCG TTTGTTGTTG	5100
TAGTAATCAA TATAGTCTAT AATGACTTGT TCCAATTGGT TAAGTGATTT AAATGTTTTC	5160
TCATAGCCAT AAAACATTTT GGATTTTAAA ATGCCAAAGA AAGATTCCAT CATACCGTTG	5220
TCTTGGCTGT TTCCCTTGGG TGACATAGAT GCTTGAATTC CCTTATTCTC TAGGAACCGA	5280
TGATAAGAAAT CGTGTGGTA TTGCCAGCCT TGGTCACTAT GGAGAATCGT ATTCTCGTAG	5340
TGCTTCTCTT TGAATGCCTG TTCCAACATT GTTTGTACTT ATTCTAAATT AGGCGAACAA	5400
GAAAGATTAA AAGCAATAAT TTCGCTGTTA AAGCCATCTA AAAGTGGTGA TAAGTAAAGC	5460

781

TTTTGAGTAC TTGCTGGAAT GGCAAATTCA GTCACATCTG TGTAGCACTT TTCCATTGTT	5520
TTAGAGCCCTT CAAATGGGGC TTGAATGAGA TTCTCTGCCT TCTTACCAAC GTCTCCTTTA	5580
TGAGAAGAAT ATTTTCGTTT CTTTCGCATT TTAGCTTGTA AATTGAGTAC TTTCATCAAG	5640
CCTTGAAGTC TTTTATGATT TACCAGATAA CCACGATTTC TTAGTTCTAA ATGAACCCGG	5700
CGATAAGCAT AATTTCCCTT GTGTTTCGATA AAGATGGATT GAATTTTCAGT TTTAAGCTCT	5760
TGGTCTTTAT CTGTTTTGTC TAGCTGTTTC AAGTGATAGT AGTAGGTCCA ACGAGCTAGT	5820
TTAATGGCTT CTAGAAGAAG ATCTAACGAA AACTCAGTCA TTAATTCCTG AACAAATTTCT	5880
GTCTTCTCTC TTTCTCTTTT TCCTCCTTCA ATCGGAGTTC TCTTAACCTT TTTAGGATGG	5940
CATTCTCCGC TCTCAGGTAC TCTCCCTCTT GTTTTCTCAA CAATAGTATA CCCGTTTTTC	6000
CTGTATTGTG CTAGCCAGTT AAGAAGTATC GTACGACTTG GGAGACCGTA TTCAAGAGAA	6060
ACTCTATCTT TAGTCCAGCC TTCATGTCAG ACTTTATTAA CCCCAATTAT TCACCCCAA	6120
TCTAAAAACC ATCCAGAATC CTTGCCTTAG CTTAGATCCT GGATGGTTTC TTTTTTCACC	6180
CAATGGGTGT TTTTACTAG ACAAAAAGA GTTCCCTT TATGGTATAA GTGTAGAAAA	6240
AAACACAAAA AGAAGGAAA CTCACATGAA CAGTTTACCA AATCATCACT TCCAAAACAA	6300
GTCTTTTTAC CAATATCTT TCGATGGAGG TCATTTAACC CAGTATGGTG GTCTTATCTT	6360
TTTTCAGGAA CTTTTTCCC AGTTGAACT AAAAGAGCGG ATTTCTAAGT ATTTAGTAAC	6420
GAATGAMCAA CGCCGCTACT GTCGTTATTC GGATTCAGAT ATCCWTGTCC AGTTCCTCTT	6480
TCAACTGTTA ACAGTTATG GAACGGAATA TGCTTG	6516

(2) INFORMATION FOR SEQ ID NO: 106:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14654 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

TTTTCAACCC ATATCGTGGC TCCTGAATAC TACTTACTGA CAACTATGCT ATCAGAGACT	60
TCTCTACTTG TTTTCTATAT CATTTTCATC CATAGAAAAC AACTCATCCA CTTGGGACAT	120
ATCTTTAGCT ATACTGTTTCG ATACTCTCTC TTTTCACTTT CCTTGTAGC AATTATTTTC	180
CTGATTAATT TCGTGTATCC TGATAGATATG GTCATTAATT TGCCATTTTT GATTAATACT	240
GGTTTGATTG TCTTGCTATC AGCTATCTCT TATATTAGTC TACTTGTCTT CACAAAAGAT	300

782

AGCATTTTCT ATGAATTTT AAACCATGTC CTAGCCTTAA AAAATAAATT TAAAAAATCA	360
TAGGAGTTTA AAATGAAACA ACTAACCGTT GAAGATGCCA AACAAATTGA ATTAGAAATT	420
TTGGATTATA TTGATACTCT CTGTAAAAAG CACAATATCA ACTATATTAT TAACTACGGT	480
ACTCTGATTG GGGCGGTTTC ACATGAGGGC TTTATCCCTT GGGACGACGA TATTGATCTG	540
TCCATGCCTA GAGAAGACTA CCAACGATTT ATTAACATTT TTCAAAAGGA AAAAAGCAAG	600
TATAAGCTCC TATCCTTAGA AACTGATAAG AACTACTTTA ACAACTTTAT CAAGATAACC	660
GACAGTACGA CTAAAATTAT TGATACTCGA AATACAAAA CCTATGAGTC TGGTATCTTT	720
ATCGATATTT TCCCTATAGA TCGCTTGTAT GATCCTAAGG TCATTGATAC TTGTTATAAA	780
CTGGAAAGCT TCAAACGCT GTCTTTCAGT AAACATAAAA ATATTGTCTA TAAGGATAGC	840
CTTTTAAAAG ATTGGATACG AACAGCCTTC TGGTTACTCC TTCGACCGGT TTCTCCTCGT	900
TATTTTGCAA ATAAATCGA GAAAGAAATT CAAAAATATA GTCGTGAAAA TGGGCAATAT	960
ATGGCTTTTA TCCCTTCAAA ATTTAAGGAA AAGGAAGTCT TCCCAAGTGG TACCTTTGAT	1020
AAAACAATCG ATTTACCCCT TGAGAATTTA AGCCTTCCTG CACCTGAAAA ATTTGATACT	1080
ATTTTGACAC AATTTTATGG AGATTATATG ACCCTACCAC CAGAAGAAAA ACGCTTCTAC	1140
AGTCATGAAT TTCACGCTTA TAAATTGGAG GATTAGGATG CAATATTTAG AAAAAAAGA	1200
AATTAAAGAA ATTCAACTAG CCCTGCTGGA CTATATTGAT GAGACTTGTA AGAAACATGA	1260
TATTCCTTAT TTTCTCAGTT ATGGAACCAT GCTTGAGGCC ATCCGCCACA AAGGTATGAT	1320
TCCTTGGGAT GATGATATTG ATATTTCCTT TTATCGTGAG GATTATGAGC GTTTACTGAA	1380
GATTATTGAA GAAGAAAATC ACCCTCGCTA CAAGGTTCTT TCCTACGATA CATCTTCTTG	1440
GTACTTCCAT AATTTGCGAT CGATTTTGGA CACTTCTACT GTTATAGAAG ACCATGTTAA	1500
GTACAAGCGT CATGATACCA GCCTTTTCAT CGATGTCTTC CCAATTGATC GATTACAGA	1560
CTTGAGCATT GTCGACAAGA GCTATAAGTA TGTGGCTCTT CGTCAACTAG CTTATATCAA	1620
AAAATCACGA GCAGTTCACG GTGATAGCAA ACTAAAAGAT TTTCTTAGAT TATGTAGCTG	1680
GTACGCTCTC CGATTGTCA ATCCTCGCTA CTTTACAAG AAAATTGATC AACTAGTCAA	1740
AAATGCTGTA ACCAACACTC CTCAATATGA AGGAGGAGTT GGGATCGGTA AGGAAGGGAT	1800
GAAAGAAATC TTCCCAAGTG ATACCTTTAA AGAACTGATT TTAAGTGAAT TTGAGGGCCG	1860
TATGTTGCCT GTTCCCAAAA AATATGACCA ATTTTAAACC CAGATGTATG GCGATTATAT	1920
GACACCACCA TCAAAAGAAA TGCAAGAGTG GTATAGTCAT AGCATTAAAG CTTATCGCAA	1980
AAACTGATTG AGGGGGATTA TACAACTAC TAAGATAGAG GTTATTCAAA AACATAATTT	2040
TAGTAGAAAA TGAAATACAT ATTCCACAA TAAACGCAT CATATCAAGG TTTTGA AAAA	2100

783

ACCTTGATAT GATGCGTTTT ATAATTTTAA AGACTTTTTT CTATAGTAGA TTGAAATAAG	2160
ATGCGAACAA ATCAATTAGA AAATTCAAAT TAATTTATAG AAATATTTTA GTATTCCTGT	2220
GTA CTGTCT AAATTCAGTC TGCTATATCT TATTTTCTA TTAAATCGC TTCTGTAACA	2280
AAGCTACGAC TTCAAGTAC CTTAAGCATG GCATTAGCTG TATCTAGCGC TGTGAAGAGG	2340
GGCACCCCGT GTTCAATGGC TGAACGACGA ATTTGCTCAC CATCTTCGTC AGCAGTTCGT	2400
TTTGTTCCTA CTGTGTTAAT GATAGCTTGA ATTCTTCCTT TCGGTACAAA ACTTGGGATA	2460
TCCTTATCGT CATCACCAAT CTTACCAACA GGTGGGCTT GCAAGCCATG ACTAGCAAAG	2520
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GGCAAGTGTA GATAAGAAGC TTCAAAGGCT TTATAGAGAG CTTTTTCCAA AGTAGCATCA	2700
GAACCCATAA CTTCACCTGT TGACTTCATT TCAGGACCGA GCAAGCTGTC TACCTTAGCT	2760
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GCCATAGGAA TATTGGTTAC CTTAGATAGG AATGGAACAG TACGGCTGGC ACGTGGATTG	2940
ACCTCAATAA CGTAGACTTT TTCATCCTTG ATAACAACT GGATGTTTAT CATTCCAAGG	3000
CAGTGAAGAC CGATTGCTAA GCGTTTGGTG TAGTCTGCGA TGGTCTCCTG AACCTTTTGC	3060
GACAAGGTTT GTGGTGGGTA AACAGCCATT GAGTCACCTG AGTGGACACC AGCACGTTCTG	3120
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ATGGTCACAC CTGCTTTTGC CAATGGCTCC GCAAGGTTGA TGGCTGTTTG ACCACCGAAC	3540
TGAACGATAA CTCCCTTTGG TTGTCCAAG TCAATGACGT TCATAACATC TTCGAATGTC	3600
AATGGCTCAA AGTAAAGCTT ATCTGATACA GAGAAGCTG TTGAAACGGT CTCTGGGTTT	3660
GAGTTCATGA TGATAGCTTC ATAACCAGCT GCCTGGATAG CCTTAACAGA GTGAACGGTT	3720
GCGTAGTCAA ACTCAACCCC TTGACCGATA CGGATTGGAC CTGAACCTAG GACAAGTACA	3780
GATTCTTTAT CAGATCTGAT AGATTCATTT TCCCAACCAT AGGTTGAATA GAAATATGGC	3840

784

GTTTCGGAGT CGAACTCTGC CGCACAAAGTG TCTACCATCT TATAAACTGG AACAACTCTG	3900
TTTTCCAAGC GAAGTTGGCG AACTTTATCA TCAGTCGTTC CCCAGAGTTC AGCAATCTTA	3960
CGGTCTGAAA AACCATTAAAG TTTGGCTGTT TTCAAAACTT CTAAATCTTG TGGATGAGCA	4020
CCCAATTCCTT GCTCAATTC AAAGATATGC AAGAGTTTAT CAAGATAGAA GATATCAATT	4080
TTTGTAAGCT CTGCAATTC TTCAGGTGTG TAGCCACGAC GAATGGCTTC TGATACGTAG	4140
AAGAGACGGT CATCTTGGGC TTGACAACC TTTTCAATCA AGGCATCATC AGAAACTGCT	4200
GCAAGTTCAG GTATTTCAAT GTGGTGCACC CCAATTTCAA GGGAGCGGCA GGCCTTGAGA	4260
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CGAATAATGC TCAAGCTCGC ATCACGAAGC ATTTGGTTTT CATAGTCTGA CATGGTTTGC	4680
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AACTCAAGTG TAATCGGTTT AATGTAAACC TTGTCAGCAA TTCTCTTGTC CGTCATGATG	5280
GTTGCAGGAT TTGAGTTAAC CAAAACAACC TCATAACCTT CCTCTTTCAA CGACAAGCAA	5340
GCCTGAGTCC CAGCGTAGTC AACTCAGCA GCCTGACCAA TAATAATCGG ACCAGAACCA	5400
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TTTTTAGCAC CGTCCGTAGC CCGTATTCAG TTCAGCAAAT ACGGAGCACC CTTCTCCTTT	5580
CTATTCGTCTG CCTCTCAGGG CGACATTAAA TAAGATACAA AGGACGAATA GAAAGCGATT	5640

785

GAATTTTAGG	AAATCAAGGA	AGGATTGACA	ATCCAAGTTG	GTTTCTCTAC	ATTCTGAGCT	5700
TTCCGTCCGT	GTTCAAGTAC	ATAAATTCTC	CGACGAGCTT	TTACTCGTTC	TTAGTTTGAT	5760
TGTTTAAAAA	CTTCCATCAT	CTCGATAAAC	TCGTCAAATA	GGTAGCTAGC	GTCTGTGGC	5820
CCAGGAGCTG	CATCTGGGTG	GTATTGAACA	GAGAAAGCAG	GTTGGTATCT	GTGGCGCACA	5880
CCTTCCACTG	ACTTGTCATT	GATTTCCTCG	TGGGTAATAA	TCAAGTGCTC	TGGCAAATCC	5940
TCGCGGCTGA	CTGCATAACC	ATGGTTCTGG	CTGGTGAAGT	CTACTCGTCC	TGTTGCGATT	6000
TCACGTACCG	CATGGTTGAA	TCCACGGTGG	CCAAACTTCA	TCTTATAGGT	CTTAGCCCCG	6060
TTTGCCATTG	CAAAGAGTTG	GTGTCCCAT	CAATACCAA	AGATTGGAAT	TTTCTCTGT	6120
ACACCGCGAA	TCATGTCGAG	TGCTGTGGA	ACGTCTTCTG	GGTTACCTGG	ACCATTTGAC	6180
AACATAACTC	CGTCAGGATT	GAGATGGAGA	ATTTCTTCAG	CCGTGTCGA	ATAAGGAACA	6240
ACTGTCACGT	TACAGTTGCG	TTTAGAAAGT	TCACGTAGGA	TTGAGTGCTT	GAGACCAAAG	6300
TCCACTAGCA	CCACGCTCAA	ACCAACTCCT	GGAGCTGGAT	AAGACGTTTT	AGTAGAAACC	6360
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CTGTCCCAA	CATGGGTCAA	GGTGTCACGC	ATAGTACCAT	GCTTACGGAT	AATCTTGGA	6480
AGAGCACGCG	TATCAATTCC	TGAAATCCCT	GGAATTTTCT	TGGCTTTCAA	AAATTCATCC	6540
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TTACAAGTTG	GAATAATGGA	TTCATAATCA	TCACGATTAA	TACCATAATT	TCCTACCAAA	6660
GGATAAGTAA	AGGTCAAGAT	TTGTCCATTA	TAAGACTGGT	CTGTAATGGA	TTCTTGGTAG	6720
CCGGTCATCC	CTGTATTAAA	GACGATTTCG	CCTGTTACAT	CAATATCTGC	TCCGAAGGCC	6780
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CCGTGATTTT	GGTGCTTCAA	CCAAGTGGTC	TGCTATTCTT	ACATCAGCAT	TGATTGGAGC	7020
TGGGTGCATG	AGGATTGCTG	TTTCTTTCAA	ACGATCGTAA	CGTTCTTGAG	TCAAGCCATG	7080
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ACGGAGAAAC	ATCATGACAT	CAACCTGATC	AATGATTTCA	TCAATGGTTA	CAAACGTCC	7200
ATAGTCTGCA	AACTCTTGAC	TTCTCCATT	CTCAGGTCCA	GCGAAAAAGA	GTTACAGTCC	7260
CAAGCGTTTC	AAAATCTGCA	TATTGGATTT	GGCAACGCGT	GAGTGGTCCA	AGTCACCTGC	7320
AATAGCAACT	TTAAGACCCT	CAAAGTGGCC	AAATTCCTCA	TAAATGGTCA	TCAAATCAAG	7380

786

CAAGCTCTGG CTAGGGTGTG GCGCCGAACC ATCTCCACCA TTGATGATGG AAGTCGTAAT	7440
CGTTGGACTA GCAATCAATT CTCTATAGTA GTCGACCTCT GGATGGCGAA TCACACAGAC	7500
ATCCACTCCT AAAGCAGACA GAGTCAAAAT GGTGTCATAA AGTGTCTCAC CCTTATTAAC	7560
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AAAGGACTTA TGTGTCCGTG TAGAATCCTC AAAGAAGAGA TTGGAACAA TCGGATGGTC	7680
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CATGGCTACT CCTTTAACTT TCTAAGCTTC TTCAGTAATC AGAACTCTGT CTTGGTCATC	7860
AAGTTCTGTC ATCTCTACGA TGATTTCTTC AGAACGACTG GTTGGGATAT TTTTCCAAC	7920
GTAATCTGGA CGGATTTGGA ATTCTCTATG TCCACGATCG ACTAGAACTG CTAAGCTCAC	7980
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TGATAACATG ACCGCAACCA GGAGTTCAAA ATGATTGGTA AAATCAAGAC TAGGCTTGGC	9120
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787

CATTATTCAT CTCCGTCAAA TAGTCCTTGT AAGCCAGCAA AAGGACTGTT TTCTTCTTTC	9240
TTTACTGCTT TTTGAGCTTG GTATTCTTCC TCTGTCATGA TTTGCCAGTC ATTTCCTGAG	9300
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AGTCTTCTGA TTGGACTGGG TAGCCTAAAA CTAAACGATC AAGCACGCAC TGCTTGGCGA	10140
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GGAGGAATTG CATTTTGATA GCAATCGTTT CGCAAGTGAC CAAGAGATTG GCAATCTATC	10860
AGGGGGCGAA GCTTTGAAAA TTCAGCTTAT CCATGAGTTA GCCAAACCCT TTGAGATTCT	10920

788

ATTTTATAGAT GAACCTTCAA ATGACCTAGA CCTTGAGACA GTTGATTGGC TAAAAGGCCA	10980
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AACGGCAGAC ACTATTGTTC ACTTGCGACT GGTCAAACAC CGTAAAGAAG CGGAAACGCT	11100
AGTAGAGCAT TTAGACTATG ATAGCTATAG TGAGCAGAGA AAGGCTAATT TTGCCAAACA	11160
AAGTCAGCAA GCTGCTAACA ACCAAAGAGC CTACGATAAA ACCATGGAAA AACATCGGAG	11220
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GTCCATGACT CAAAAGCCAC TTGAAGAGGA ACAAATCCAA CTTTCTTTT CAGACATCCA	11400
ACCATTACCA GCTTCTAAAG TCTTAGTCCA ACTGGAAAA GAAAAATTGT CCATTGACGA	11460
CCGAGTTTGT GTTCAAAAAC TACAACTAAC TGTCCGTGGC CAAGAAAAA TCGGTATTAT	11520
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TGTTTAAAC GTTCAATCCG TTCTGAGATA GGTGGGTGGG TATAAAGAG TTTTGAAC	12120
CCCCACCTT TCTTAGGATC ATTGATATA AGGGCACTGC TAGCATCATC GACGTGGCGA	12180
CTCATAGGTT TGCTATTGTC CAACTTATCT AGGGCATTAA TCATTCCCTG GGGATTGCGA	12240
GTCAGCTCGA CACTAGATGC ATCTGCCAGA AATTCCCTCT GACGAGAAAT AGCGAGCTGA	12300
ACCAAGGTGT CAGCGAGAGG TGCCAGTACA ATAGCTAGTA GGGAAACCAC TAGCATAATG	12360
ATTTCAAGAC CATTTCCATC TCGGTCATCA TCACTTCGTC TGCGACCTGC TCCACCCAC	12420
CACATCATAC GACCTGCCAT ACTAGAAAGC ATGGTGATAG CACTAGCAAG GGCAACTGCA	12480
ATAGTCGAAA TACGATATC ATAATTACGA ATATGACTGA CTTTATGTCC CATAACAGCT	12540
TCTAGTTCTT CACGATTCAT GATAGCTAGT AGACCTGAAG TCGCAGCAAC AGCCGCATT	12600
TGAGGATTAG AACCTGTGCG AAAGGCATTT AAGGCTGGAT CATCAATGAT GAAAACACGG	12660
GGCATAGGAA TCTGAGCGAC CAGAGCCATA TCTTCCACTA CATGGTAGAG GTCTGGTGCC	12720

789

GTTTGCTCAT CCACCTCAGC CGCTCCATTC ATGGACATGA CAATCTCTGT CGATTGAAAA	12780
ATCATAGACA AAGCGTAGAT AAAGCCGATA ATCAGTGCAA TAACCAAACC ACCAAGTCCA	12840
GATCTTATAA AGAGATAACC AACCGCATAA CCAACAAGAG CTAAGAGTAG GAAAAATACC	12900
AGCAACAAAA TCCAGGTTTT TCGTTTATTG CTTGCAATTT GATCAAACAA CATCTTAGTC	12960
ACCTAAACCG CTAAATCAA CTTTAGGAAC CGACTTTTCC TCTTCAGGTG TTTGAAGGAA	13020
ATCTGCCGCT TTAATCCAA ACATTCCAGC GATAATATTG CTCGGGAAAG TTTCTAATTT	13080
TACATTGTAG TTGCTGACAA CACTGTTATA GAGTTGACGA GAGTAAGAAA TTTTATTTTC	13140
TGTGTTTGTC AACTCCTCTT GCAATTTAAC AAAGTTAGCA CTAGCTTTCA AATCTGGATA	13200
GCTTTCTGCA ACTGCAAAAA TACCTGAAAC CTGACGAGTG AGGGCATCAC TGGCTTTCAT	13260
AGCTTCTGCT GGTGAAGTCG CTGCCGCCAC TTGGTTACGT AGTTCTGCCA CCTTTTCAAG	13320
GGTAGAACCT TCATATTTGG CATAACCTTT TACAGTCTCA ATCAAGTTTG GCAAGAGGTC	13380
ATTGCGACGT TTCAACTGAA CATCAATCTG ACTCCAAGCC TCCTTGGTTT GCATACGATT	13440
TTTAACCAAA CCGTTATAGC TAACAATCAC AAAAATAACA ATAAGAGCGA TAACTCCAAG	13500
AATAATCCAA GTCATAATAT AAGTCCTTTC TGCTTTTAGA TTAGTACCAG TATATCAAAT	13560
TTTCTATGAT TGTGGTAAAA TAAGATGATA CTAAAGAAGG AAATAACTAT GAAACCAAAA	13620
ACATTTTACA ACTTGCTTGC CGAGCAGAAT CTTCCACTTT CGGACCAGCA AAAAGAACAA	13680
TTTGAAACGT ATTTTGAGCT CTTGGTCGAG TGGAATGAGA AGATTAATTT GACGGCGATT	13740
ACGGACAAGG AAGAAGTTTA TCTCAAACAT TTTTACGATT CGATTGCACC CATTCTTCAA	13800
GGTTTGATTC CCAATGAAAC TATCAAACCTT CTTGATATCG GGGCTGGGGC AGGATTTCTT	13860
AGTCTACCAA TGAAAATTCT CTATCCGGAG TTAGATGTGA CCATTATTGA TTCACTCAAT	13920
AAGCGCATCA ACTTCCTACA ACTCTTGGCT CAAGAAGTGG ATTTGAACGG AGTTCATTTT	13980
TACCACGGAC GTGCCGAAGA TTTTGCCCAA GACAAGAACT TCCGTGCTCA ATATGATTTT	14040
GTAACAGCTC GTGCGGTTGC CCGTATGCAG GTCCTATCTG AATTGACTAT TCCCTACCTT	14100
AAGGTTGGTG GCAAACATTT AGCACTCAAG GCTAGCAATG CGCCTGAGGA ATTATTAGAA	14160
GCTAAGAATG CCCTCAATCT CCTTTTtagT AAGGTCGAAG ACAATCTCAG TACGCCCTAC	14220
CGAATAGAGA TCCGCGCTAT ATCACAGTGG TAGAAAAGAA AAAAGAAACA CCAATAAAT	14280
ATCCACGTAA GGCTGGTATG CCAAATAAAC GCCCACTTTA AATTTTTTtag TAAACAAATG	14340
TTTACAAAAT CAGCCTCGCT CTTTTATTTC TAGGCTCGGG AAAAAATGAT TTACAAAATC	14400
AGCCTCGCTC TTTTATTCTT AGGCTCGGGA AAAAATGATT TACAAAATCA TTTTTTCTG	14460

790

CTATACTATC CTAAGCAAAG GTTTTAAATG TCATCCCGTG AGGTGACGAA GACGCAGAAA	14520
TATTTAAAAC TCTTTAAAT CTAAATTTA AAGAAGTCTT ACTCTGAGGG CCTATTGCTG	14580
TAAAAAATG GGCTCTTTT TGATGCCCAA AAGTGAGGTT TATATGAAAC AAGAATCAAC	14640
TGTTGATTG TTAC	14654

(2) INFORMATION FOR SEQ ID NO: 107:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6405 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

AGAAAAATCT GCTTTACAGA AAATAAAAT AATAGGAGAA AATCTATGTC AGATTGAAA	60
AAATACGAAG GTGTCATTCC AGCCTTCTAC GCATGTTATG ATGATCAAGG AGAAGTAAGC	120
CCAGAACGTA CGCGTGCCTT GGTCAATAC TTCATTGATA AAGGTGTTCA AGGTCTTTAT	180
GTCAATGGTT CTTCTGGTGA ATGTATCTAC CAAAGCGTTG AAGATCGCAA GTTGATTTTG	240
GAAGAAGTCA TGGCGGTAGC AAAGGTAAAT TGACCATTAT TGCCCATGTT GCTTGCAATA	300
ATACTAAAGA TAGTATGGAA CTTGCTCGCC ATGCTGAAAG CTTGGGAGTA GATGCTATTG	360
CAACGATTCC ACCAATTTAT TTCCGCTTGC CAGAATACTC AGTTGCCAAA TACTGGAACG	420
ATATCAGTTC TGCAGTCCA AACACAGACT ACGTGATTTA CAACATTCCT CAATTGGCAG	480
GGGTTGCTTT GACTCCAAGC CTTTACACAG AAATGTTGAA AAATCCTCGT GTPATCGGTG	540
TGAAGAACTC TTCTATGCCA GTTCAAGATA TCCAAACCTT TGTACGCCTT GGTGGAGAAG	600
ACCATATCGT CTTTAATGGT CCTGATGAGC AGTTCCTAGG AGGACGCCTC ATGGGGGCTA	660
GGGCTGGTAT CGGTGGTACT TATGGTGCTA TGCCAGAACT CTTCTTGAAA CTCAATCAGT	720
TGATTGCGGA TAAGGACCTA GAAACAGCGC GTGAATTGCA GTATGCTATC AACGCAATCA	780
TTGGTAAACT CACTTCTGCT CATGGAAATA TGTACGGTGT CATCAAAGAA GTCTTGAAAA	840
TCAATGAAGG CTGAATATT GGATCTGTTT GTTCAACATT GACACCAGTG ACTGAAGAAG	900
ATCGTCCAGT TGTAGAAGCG GCTGCTGCCT TGATTCGTGA AACCAAGGAG CGCTTCCTCT	960
AATCTAAAAG GAGGTATTTA TGACATATTA CGTTGCAATT GATATCGGTG GAACCAACAT	1020
CAAGTATGGT TTGTTGATC AAGAGGGGCA ACTTCTTGAA TCGCATGAAA TGCCAACCTGA	1080
GGCGCATAAG GGTGGACCTC ATATCTTACA AAAGACCAA GATATCGTAG CTAGTTATTT	1140
AGAAAAAGGC CCAGTAGCAG GTGTTGCCAT ATCTTCTGCT GGGATGGTGG ATCCGGATAA	1200

791

GGGTGAGATT TTCTATGCTG GGCCGCAAAT CCCTAACTAC GCAGGCACCC AGTTCAAAAA	1260
GGAAATCGAA GAAAGCTTTA CTATTCCCTG TGAGATTGAA AATGATGTCA ACTGTGCAGG	1320
TCTTGCTGAG GCAGTATCTG GTTCAGGCAA GGGAGCAAGT GTGACACTTT GCTTGACCAT	1380
TGGAACCGGT ATCGGTGGTT GCTTGATTAT GGATAGGAAA GTCTTCCATG GTTTTAGCAA	1440
TTCAGCCTGT GAAGTCGGT ATATGCATAT GCAGGATGGA GCTTTTCAAG ACTTGGCTTC	1500
TACAACAGCT TTAGTGAAAT ATGTAGCTGA AGCCCATGGA GAAGATGTTG ATCAGTGGAA	1560
TGGCCGTAGA ATTTTCAAAG AAGCCACTGA AGGAAACAAA ATCTGCATGG AAGGTATTGA	1620
CCGTATGGTT GACTATCTAG GAAAAGGTCT GGCAAATATT TGCTACGTTG CCAATCCAGA	1680
AGTGGTTATT CTGGTGGTG GTATCATGGG GCAAGAGGCT ATCCTCAAAC CTAAGATCCG	1740
TACAGCCTTG AAAGAGGCTT TGGTACCAAG TTTAGCAGAA AAAACACGAT TAGAATTGTC	1800
CCATCACCAA AATACAGCAG GGATGTTGGG TGCATATTAT CATTTTAAGA CAAACAATC	1860
CTAGTTTGGC TCAGCCAAAC TAGGATTTTC TTACACGTTT TTGTCTACGA TAGCCGTGA	1920
GTTTTTTATT TTCCAGTAG CTATTAAAGA TTTTTTCCTT GCTTTCGCGA TTGATTCCA	1980
AAAAGTAGGC ATAAATCAA TCGATAAAGA AGAGCATAGG AAGTTGAGCG GATATTCGTT	2040
GGATATAGGA GGGTTGGCTG TGGGTGGCTA CAAGAACAGT CTCTGTATAG GTCGCGCTAT	2100
CTTTATTGGG AACACTTGTA AAGAGTACAG TCTTTGCCCC CATCTCCTTA GCATCTAATA	2160
GACTATCTAA AATAGAAGGA GTTGAGCCTG AAAGTGAGAA GCCCAGTACT AGACAATTTT	2220
CATCCATGAT GCTGGTTGTC CAGGCAAAGC CGTCTTGGTC TGTCAAAGCT TCGCAGACCA	2280
CACCTAGTCG CATAAACGT AATTTCAATT CACGGGCGAC GAGGCCAGAA CTCCCTGTTT	2340
CAAAGAAGTA GATACGCTCA GCATCTTCGA TTAGCTGGGC AATTCGTTCT AGTTGGATTT	2400
CGTCAATCAA GTCTTGTTT TGTTCCTCA TATTGCTATA ACTTCTGAGG ACTCGTTTGG	2460
TCAGTGGACT GTGCTTGAG ACTTGGTTGG CTTGATTTTC TGCCTGATGT TGGTATTGGA	2520
AAATAAATC TCGGTAGCCA GTAAAGCCAC ACTTTTATAG AAAGCGGGTC AAAGCAGCTT	2580
GAGAAATATG TAATTTTGG GTGACTTGTT GAGAAGATAA ATCATCTGTA ATCGTTTCAG	2640
CTTGCAAAAA ATAGCGAGCG ATTTCCTGTT CTAGGTCTGT CATTTCTTCA AAATGTGAAT	2700
CAATGATAGT TGCGATATCT GGTTCGTCCA TAGGGAAAGC TCCTTTACAT GAGTCATACT	2760
GGAAGACTAG ATCAGAGAAT AGTCACACTT CATTATAACA CATAATATAA GGATAGATAA	2820
ATAAAAACGC ATCTCTGTTT TAAAAACGAA AAAATCGAAA AAGCTTCTCT CTTTCCATA	2880
ATTTTCTACT CAAATTGTTG TACAATTAAG AGTAAGATTT TAAGTTAGAA ATGAGACTGA	2940

792					
TTTGATGAG	AAAATTTAAC	AGCCATTGGA	TTCCGATTG	GCTTAATTTA	TTGTTTCAA
TCGTCATTTT	ACTCTTTATG	ACCATTTATG	GTCGTTTGTT	GTATATGCAG	GTTTGAACA
AGGATTTTTA	CGAAAAAAG	CTAGCTTCAG	CTAGTCAGAC	CAAGATTACA	AGCAGTTCAG
CCCGTGGGGA	AATTTATGAT	GCTAGTGGA	AACCTTTGGT	AGAAAATACG	TTAAAGCAGG
TTGTTTCCTT	TACGCGTAGC	AATAAAATGA	CGGCTACAGA	CTTAAAAGAA	ACAGCTAAAA
AGTTACTGAC	TTATGTGAGC	ATCAGTTCTC	CAAATTTGAC	AGAACGCCAG	CTGGCGGATT
ACTATTTGGC	TGATCCTGAA	ATCTATAAAA	AAATAGTGGA	AGCTCTCCCA	AGTGAGAAAC
GCTTGGATTG	AGATGGCAAT	CGTCTATCCG	AATCAGAACT	GTATAACAAT	GCGGTCGATA
GTGTACAAAC	GAGTCAACTA	AACTATACAG	AGGATGAAAA	GAAAGAAATC	TATCTTTTTA
GTCAGTTAAA	TGCTGTTGGA	AACTTTGCGA	CAGGAACCAT	TGCGACAGAT	CCTCTAAATG
ATTCTCAGGT	GGCTGTTATT	GCCTCTATTT	CAAAGGAGAT	GCCTGGCATT	AGTATTTCTA
CTTCTTGGGA	TAGAAAGGTT	TTGGAAACTT	CCCTTTCTTC	TATAGTTGGG	AGTGTATCCA
GTGAAAAAGC	TGGTCTCCCA	GCGGAAGAAG	CAGAAGCCTA	TCTTAAAAAA	GGCTATTCTC
TAAATGACCG	TGTAGGAACC	TCCTATTTGG	AAAAGCAATA	TGAAGAGACC	TTACAAGGAA
AACGCTCGGT	AAAAGAAATC	CATCTGGATA	AATATGGCAA	TATGGAAAGC	GTGGATACAA
TTGAGGAAGG	TAGTAAGGGA	AACAATATCA	AACTGACCAT	TGATTTGGCT	TTCCAAGATA
GCGTGGATGC	TTTACTGAAA	AGTTATTTCA	ATTCTGAGCT	AGAAAATGGT	GGAGCCAAGT
ATTCTGAAGG	TGTCTATGCA	GTCGCCCTTA	ACCCAAAAAC	AGGTGCGGTT	TTGTCTATGT
CAGGGATTAA	ACATGACTTG	AAAACGGGAG	AGTTGACGCC	TGATTCCTTG	GGAACGGTAA
CCAATGCTTT	TGTTCCAGGT	TCGGTTGTCA	AGGCGGCGAC	CATCAGCTCA	GGTTGGGAAA
ATGGAGTCTT	GTCAGGAAAC	CAGACCTTGA	CAGACCAGTC	CATTGTCTTC	CAAGGTTTCA
CTCCCATCAA	TTCTTGGTAT	ACTCAGGCTT	ACGGTTCATT	CCCTATCACA	GCGGTCCAAG
CTCTGGAGTA	TTTCATCAAAT	ACCTATATGG	TCCAAACAGC	CTTAGGTCTT	ATGGGGCAAA
CCTATCAACC	CAATATGTTT	GTCGGCACCA	GCAATCTAGA	GTCTGCTATG	GAGAACTGTC
GTTCAACCTT	TGGCGAATAT	GGCTTGGGTA	CTGCGACAGG	AATTGACCTA	CCAGATGAAT
CTACTGGATT	TGTTCCCAAA	GAGTATAGCT	TTGCTAATTA	CATTACTAAT	GCCTTTGGGC
AGTTTGATAA	CTATACGCCG	ATGCAGTTGG	CTCAGTATGT	AGCAACTATT	GCAAATAATG
GTGTTGCTGT	GGCTCCTCGT	ATTGTTGAAG	GCATTTATGG	TAATAATGAT	AAGGGAGGAC
TGGGTGACTT	GATTACAGCA	CTGCAACCGA	CAGAGATGAA	TAAGGTCAAT	ATATCCGACT
CCGATATGAG	CATCTTGAC	CAAGGTTTTT	ATCAGGTTGC	CCATGGTACT	AGTGGATTGA

793

CAACTGGACG TGCCTTTTCA AATGGTGCCT TGGTATCCAT TAGCGGAAAA ACAGGTACAG	4800
CCGAAAGCTA TGTGGCAGAT GGTGAGCAAG CAACCAATAC CAATGCGGTG GCCTATGCCC	4860
CATCTGATAA TCCCCAAATC GCTGTCGCAG TGGTCTTTCC TCATAATACC AATCTAACAA	4920
ATGGTGATAG ACCTTCCATT GCGCGTGACA TTATCAATCT GTATCAAAAA TACCATCCAA	4980
TGAATTAGAA AGGAAATTAT GCTTTATCCA ACACCTATTG CCAAGTTGAT TGACAGTTAT	5040
TCTAAGTTAC CAGGTATCGG GATTAAGACG GCTACGCGTC TGGCCTTTTA TACGATTGGG	5100
ATGTCTGCTG ATGATGTCAA TGAATTTGCA AAAAATCTCC TTTCTGCTAA GAGAGAATTG	5160
ACATATTGTT CTATTTGTGG ACGTTTGACA GACGACGATC CTTGTTCTAT CTGTACTGAT	5220
CCGACTCGTG ACCAGACAAC AATTTAGTT CTTGAGGATA GTAGAGATGT GGCAGCCATG	5280
GAAAAATATCC AAGAATACCA TGGACTCTAT CATGTCCTTC ATGGCCTCAT TTCTCCTATG	5340
AATGGTATCA GTCGGACGA TATCAATCTC AAGAGCCTTA TGACTCGTCT TATGGATAGT	5400
GAGGTTTCAG AAGTATTGT GGCAGCTAAT GCTACAGCGG ATGGTGAAGC GACTTCCATG	5460
TATCTTTCAC GTTTGCTCAA GCCGGCTGGT ATCAAGGTTA CGCGTCTAGC ACGAGGTCTC	5520
GCTGTGGGAG CGGACATTGA GTATGCGGAC GAAGTGACAC TCTTACGAGC CATTGAAAAT	5580
CGGACAGAGT TGTAAGTGA GGCAAAATTA CGAACTCCAT TCATTATATA AAAATCAAAG	5640
AGGCTGAAAA TCGTTCCTAT CGGCCTCTTT TTGTATAGTG TGATGAGTAG GCTCAGGTTT	5700
AAGTTTAAAA AAACCAAGCA AATATGATAT ACTAAAGAGC GAGTATTCTA GTAGAATTAG	5760
GACAAATAAT ATGAAACAAA CGATTATTCT TTTATATGGT GGACGGAGTG CGGAACGCGA	5820
AGTCTCTGTC CTTTCAGCTG AGAGTGTAT GCGTGCGGTC GATTACGACC GTTTCACAGT	5880
CAAGACTTTC TTTATCAGTC AGTCAGGTGA CTTTATCAAA ACACAGGAAT TTAGTCATGC	5940
TCCGGGGCAA GAAGACCGTC TCATGACCAA TGAAACCATT GATTGGGATA AGAAAGTTGC	6000
ACCAAGTGCT ATCTACGAAG AAGGTGCAGT GGTCTTTCCA GTCCTTCACG GGCCAATGGG	6060
AGAAGATGGC TCTGTTCAAG GATTCTTGGA AGTTTGGAAA ATGCCTTACG TTGGTTGCAA	6120
CATTTTGTC TCAAGTCTTG CCATGGATAA AATCACGACT AAGCGTGTTT TGGAATCTGC	6180
TGGTATTGCC CAAGTTCCTT ATGTGGCTAT CGTTGAAGGC GATGATGTGA CTGCTAAAAT	6240
CGTGGAAGTG GAAGAAAAAT TGGCTTATCC AGTCTTCACT AAGCCGTCAA ACATGGGGTC	6300
TAGTGTCGGT ATTTCTAAGT CTGAAAACCA AGAAGAACTC CGTCAAGCCT TAAAACTTGC	6360
CTTCCGATAT GACAGCCGTG TCTTGGTTGA GCAAGGAGTG AATGC	6405

(2) INFORMATION FOR SEQ ID NO: 108:

794

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11309 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

CGAGCTCGGG TACCGGGATT TTAAGGAGTT TGATATGTAT AACCTATTAT TAACCATTTT	60
ATTAGTATTA TCTGTTGTGA TTGTGATTGC AATTTTCATG CAACCAACCA AAAACCAATC	120
CAGCAATGTA TTTGATGCCA GTTCAGGTGA TTTGTTTGAA CGCAGTAAAG CTCGCGGTTT	180
TGAAGCTGTA ATGCAGCGTT TGACAGGGAT TTTAGTCTTT TTCTGGCTAG CCATTGCCTT	240
AGCATTGACG GTATTATCAA GTAGATAAGA AAATAATGGG CAGGACTAGG TCTTTGCCTC	300
TTTTTATTTT TAAAGGATGT TTGAGAAGGT TTTACAGTAA AAGAAAATTA AAAAATCTAG	360
AAAGAAAATA TGAAAGATAG AATAAAAGAA TATTTACAAG ACAAGGGAAA GGTGACTGTT	420
AATGATTTGG CTCAGGCTTT GGGAAAAGAC AGTTCCAAGG ATTTTCGTGA GTTGATTAAA	480
ACCTTGTCCT TAATGGAAAG AAAGCACCAA ATTCGTTTGG AAGAAGATGG TAGTCTGACA	540
TTAGAAATTA AGAAAAACA TGAGATTACC CTCAAGGGGA TTTTTCATGC CCATAAAAAAT	600
GGCTTTGGCT TTGTAGTCT GGAAGGCGAG GAGGACGACC TTTTGTAGG GAAAAATGAT	660
GTCAACTATG CTATTGATGG TGATACCGTC GAGGTAGTGA TTAAGAAAGT CGCTGACCGC	720
AATAAGGGAA CAGCAGCAGA AGCCAAAATT ATTGATATCC TAGAACACAG TTTGACAACA	780
GTTGTCGGGC AAATCGTTCT GGATCAGGAA AAACCTAAGT ATGCTGGCTA TATTCGTTCA	840
AAAAATCAGA AAATCAGTCA ACCGATTAT GTTAAGAAAC CAGCCCTAAA ATTAGAAGGA	900
ACAGAAGTTC TCAAAGTCTT TATCGATAAA TACCCAAGCA AGAAACATGA TTTCTTTGTC	960
GCGAGTGTTC TCGATGTAGT GGGACACTCA ACGGATGTGG GAATTGATGT TCTTGAGGTC	1020
TTGGAATCAA TGGACATTGT ATCCGAGTTT CCAGAAGCTG TTGTTAAGGA AGCAGAAAGT	1080
GTGCCTGATG CTCGCTCTCA AAAGGATATG GAAGGTCGTC TGGATCTAAG AGATGAAATT	1140
ACCTTTACCA TTGACGGTGC GGATGCCAAG GACTTGGACG ATGCAGTGCA TATCAAGGCT	1200
CTGAAAAATG GCAATCTGGA GTTTGGGGTT CACATCGCAG ATGTTTCTTA TTATGTGACC	1260
GAGGGGTCTG CCCTTGACAA GGAAGCCCTT AACCGTGCGA CTTCTGTTTA CGTGACAGAC	1320
CGAGTGGTGC CAATGCTTCC AGAACGACTA TCAAATGGCA TCTGCTCTCT CAATCCCCAA	1380
GTTGACCGCC TGACCCAGTC TGCTATTATG GAGATTGATA AACATGGTCG TGTGGTCAAC	1440
TATACCATTA CACAAACAGT TATCAAGACC AGTTTTCGTA TGACCTATAG CGATGTCAAT	1500

795

GATATCCTAG CTGGCGATGA AGAAAAGAGA AAAGAATATC ATAAAAATTGT ATCAAGTATC	1560
GAACTCATGG CCAAGCTTCA TGAAACTTTA GAAAACATGC GTGTGAAACG TGGAGCTCTC	1620
AATTTTGATA CCAATGAAGC GAAGATTTTA GTGGATAAAC AAGGTAAGCC TGTTGATATC	1680
GTTCCTCGGC AGCGTGGTAT TGCCGAGCGG ATGATTGAGT CTTTATGTT GATGGCTAAT	1740
GAAACAGTTG CCGAACATTT CAGCAAGTTG GATTGCGCTT TTATCTATCG AATTCACGAG	1800
GAGCCTAAGG CTGAAAAGGT TCAGAAGTTT ATTGATTATG CTTCGAGTTT TGGCTTGCGC	1860
ATTTATGGAA CTGCCAGTGA GATTAGTCAG GAGGCACTTC AAGACATCAT GCCTGCTGTT	1920
GAGGGAGAAC CTTATGCAGA TGTATTGTCC ATGATGCTTC TTCGCTCTAT GCAGCAGGCT	1980
CGTTATTTCG AGCACAATCA CGGCCACTAT GGACTAGCTG CTGACTATTA TACTCACTTT	2040
ACCAGTCCAA TTCGTCGTTA TCCAGACCTT CTTGTTTACC GTATGATTTC GGATTACGGC	2100
CGTTCTAAGG AAATAGCAGA GCATTTTGAA CAAGTGATTC CAGAGATTGC GACCCAGTCT	2160
TCCAACCGTG AACGTCGTGC CATAGAAGCT GAGCGTGAAG TCGAAGCCAT GAAAAGGCT	2220
GAGTATATGG AAGAATACGT GGGTGAAGAG TATGATGCAG TTGTATCAAG TATTGTCAA	2280
TTGCGTCTCT TTGTCGAATT GCCAAACACA GTTGAAGGCT TGATTCACAT CACTAATCTG	2340
CCTGAATTTT ATCATTTCAA TGAGCGTGAT TTGACTCTTC GTGGAGAAAA ATCAGGTATC	2400
ACTTTCAGAG TGGGTCAGCA GATCCGTATC CGTGTGAAA GAGCGGATAA AATGACTGGA	2460
GAGATTGATT TTTTCATTCG ACCTAGTGAG TTTGATGTGA TTGAAAAAGG CTTGAAACAG	2520
TCTAGTCGTA GTGGCAGAGG GCGTGATTCA AATCGTCGTT CGGATAAGAA GGAAGACAAG	2580
AGAAAATCAG GACGCTCAAA TGATAAGCGT AAGCATTCAC AAAAGACAA GAAGAAAAA	2640
GGAAAGAAC CTTTTTACAA GGAAGTAGCT AAGAAAGGAG CCAAGCATGG CAAAGGGCGA	2700
GGGAAAGGTC GTCGCACAAA ATAAAAAGGC ACGCCACGAC TATACAATCG TAGATACGCT	2760
AGAGGCAGGG ATGGTCCTGA CTGGAAGTGA AATCAAGAGT GTACGAGCTG CTCGAATTAA	2820
TCTCAAGGAT GGCTTTGCTC AAGTGAAAAA TGGAGAAGTT TGGCTGAGCA ATGTTTCATAT	2880
CGCGCCTTAC GAAGAGGGCA ATATCTGGAA CCAGGAACCA GAACGTCGTC GTAAACTCCT	2940
GCTCCATAAA AAGCAAATTC AAAAATTGGA ACAAGAGATC AAAGGGACAG GAATGACCTT	3000
AGTTCCCTT AAGGTCTATA TAAAAGATGG CTACGCTAAG CTTCTTTTAG GACTTGCCAA	3060
AGGGAAGCAT GACTATGACA AACGGGAGTC TATCAAACGT CGTGAGCAAA ATCGAGATAT	3120
CGCGCGTGTG ATGAAAGCTG TTAATCAGCG ATAAAAAGAG GAATTGAAAA TGGAAAAATT	3180
AGTTGCCTAT AAACGCATGC CTTTGTGGAA TAAACAAACA ATGCCTGAAG CTGTTACGCA	3240

796

AAAGCACAAT ACAAAGTTG GGAAGTTGGG GAAAATTACT GTCTTGAAGG GAGCTCTCAA	3300
GTTTATTGAA TTGACAGAAG AAGGGGAAGT TCTAGCTGAA CACCTCTTTG AAGCAGGGGC	3360
AGACAATCCA ATGGCCCAAC CTCAAGCCTG GCACCGAGTG GAAGCTGCCA CAGATGATGT	3420
GGAATGGTAC TTGGAATTTT ATTGTAAACC TGAGGATTAT TTTGCTAAAA AATACAATAC	3480
CAATCCTGTT CATTCAGAGG TCCTAGAGGC CATGCAGACA GTGAAACAAG GGAAAGCTTT	3540
GGATTTGGGT TGTGGTCAGG GGCCTAATTC TCTTTTCTA GCCCAGCAAG ATTTTGATGT	3600
GACGGCTGTA GATCAAAATG GACTAGCTCT TGAAATCTTG CAAAGCATTG TGGAGCAGGA	3660
AGATTTGGAC ATGCCTGTTG GCCTTTACGA TATCAATTCA GCTAGCATTG AACAAGAATA	3720
TGATTTTATC GTTCAACAG TTGTTCTCAT GTTCTTACAA GCGGACCGCA TTCCAGCTAT	3780
TATTCAAAAT ATGCAGGAGA AAACCAGTGT TGGTGGTTAC AACCTTATCG TTTGTGCCAT	3840
GGACACGGAG GATTATCCTT GCTCGGTAA CTTCOCATT CACCTTTAAAG AAGGAGAACT	3900
GGCAGACTAT TACAAGGATT GGAATTGGT TAAGTACAAT GAAAATCCAG GCCATTGCA	3960
CCGTCGCGAT GAGAATGGCA ATCGTATTCA ACTACGCTTT GCGACCTTAC TAGCTAAGAA	4020
AATCAAGTAA ACACACATGA AGATTAGGAA TTTTCCTGAT CTTTTTCTT TTTTACGAAT	4080
GATATAGAAA AGGAGGGAAT TCATGTTTGT TGCGAGAGAT GCTAGGGGAG AATTGGTAAA	4140
TGTGTTAGAG GATAAACTTG AGAAGCAAGC ATACACCTGC CCAGCTTGTG GAGGCCAGCT	4200
CCATTTGCGT CAAGGACCAA GTGTACGGAC GCATTTTGCC CATAAATCCT TAAAGACTG	4260
TGATTTTTC TTTGAAAATG AAAGTCCAGA ACACCTGGCC AATAAGGAAT CCCTCTATCA	4320
CTGGTTGAAA AAAGAGACAA AGGTTCAATT AGAGTACCCG CTTTCAGAAC TTAACAGAT	4380
TGCGGATGTA TTTGTAAATG GCAATCTAGC TCTAGAAGTT CAGTGTAGTC CCTTGCCTCA	4440
GAAAGTCCTT AAAGAGCGAA GTGAGGGCTA TCGTAGTCAG GGTACCAAG TACTGTGGTT	4500
GCTGGGTCAA AAAGTGTGGC TCAAGGAGCG TTTGACTCGT CTACAGCAAG GTTTCTTTA	4560
TTTCAGTCAA AACATGGGCT TTTATGTTTG GGAATTAGAC AAGGAAAAAC AAGTTTAAAG	4620
ACTCAAATAC CTGATTTACC AGGATCTCCG CGGTAACTC CATTATCAAA TCAAGGAATT	4680
TTCTATGGT CAAGGTAGTT TATTGGAAAT ATTGCGTCTT CCCTATAAGA GACAAAAAT	4740
ATCTCATTTT ACAGTTTCTG AGGACAAGGA CATCTGTCGC TATATCCGGC AACAACTTTA	4800
TTATCAAAAT CTCTTTTGA TGAAAGAACA AGCAGAAGCC TATCAAAAGG GAGAAAATAT	4860
CCTGACTTAT GGACTGAAAG AATGGTATCC ACAAATTCGA CCAATAGTGG GCAAATTTT	4920
CCAGATTGAA CAAGACTTGA CTAGCTATTA TCAGCACTTT TATACCTATT ACCAAAAAAA	4980
TCCTCAAAAT GATTGGCAAA AGCTTTATCC ACCAGCCTTT TATCAGCAAT ATTTCTTGAA	5040

797

AAATATGGTA GAATAGAAAG GATGGAGGAA TCTAATGGTA TTACAAAGAA ATGAAATAAA	5100
TGAAAAAGAT ACATGGGATC TATCAACGAT CTACCCAACCT GACCAGGCTT GGAAGAAGC	5160
CTTAAAAGAT TTAACAGAAC AATTGGAGAC AGTAGCCCAG TATGAAGGCC ATCTCTTGGA	5220
TAGTGCGGAT AACCTACTAG AAATCACTGA ATTTTCTCTT GAAATGGAAC GCCAGATAGA	5280
GAAGCTTTAC GCTTATGCTC ATATGAAGAA TGACCAGGAT ACACGTGAAG CTAAGTATCA	5340
AGAGTACTAT GCCAAGGCCA TGACACTCTA CAGCCAGTTA GACCAAGCCT TTTCATTCTA	5400
TGAGCCTGAA TTTATGGAGA TTAGCGAAAA GCAGTATGCT GACTTTTGTAG AAGCTCAACC	5460
AAAGCTGCAG GTTTATCAAC ACTATTTTGA CAAGCTTTTG CAAGGCAAGG ATCACGTTCT	5520
TTTACAACGT GAAGAAGAAT TATTGGCTGG AGCTGGAGAA ATCTTTGGTT CAGCAAGTGA	5580
AACCTTCGCT ATCTTGACA ATGCGGATAT TGTGTTCCCT TATGTCCTAG ACGATGATGG	5640
TAAAGAAGTT CAGCTATCTC ATGGGACTTA CACACGTTTG ATGGAGTCTA AAAAACGTGA	5700
GGTTCGCCGT GGTGCCTATC AAGCTCTTTA TCGGACTTAC GAACAATTCC AACACACCTA	5760
TGCCAAAACC TTGCAACCA ATGTTAAGGT GCAAAATTAC CGTGCTAAAG TTCGTAACCTA	5820
CAAGAGTGCT CGTCATGCAG CCCTCGCAGC GAATTTTGTT CCAGAAAGTG TTTATGACAA	5880
TTTGAGTAGCA GCAGTTGCGA AGCATTTGCC ACTCTTACAT CGCTATCTTG AGCTTCGTTT	5940
AAAAATCTTG GGGATTTTCA ATCTCAAGAT GTACGATGTC TACACACCGC TTTCATCTGT	6000
TGAATACAGT TTTACCTACC AAGAAGCCTT GAAAAAAGCA GAAGATGCTT TGGCAGTCTT	6060
GGGTGAGGAT TACTTGAGCC GTGTTAAACG TGCCTTCAGC GAGCGTTGGA TTGATGTTTA	6120
CGAAAATCAA GGCAAGCGTT CAGGTGCCTA CTCTGGTGGT TCTTATGATA CCAATGCCTT	6180
TATGCTTCTC AACTGGCAAG ACAATCTGGA CAATCTCTTT ACTCTGTTC ATGAAACAGG	6240
TCACAGTATG CATTCAGCT ATACTCGTGA AACTCAGCCT TATGTTTACG GGGATTACTC	6300
TATCTTTTGG GCTGAGATTG CCTCAACTAC CAATGAAAAT ATCTTGACGG AGAAATTATT	6360
GGAAGAAGTG GAAGACGACG CAACACGCTT TGCTATTCTC AATAACTTCC TAGATGGTTT	6420
CCGTGGAACA GTTTTCCGCC AAACCTCAAT TGCTGAGTTT GAACACGCCA TTCACCAAGC	6480
AGATCAAAAT GGGGAGGTCT TGACAAGCGA TTTCTTAAAT AAACCTCTACG CAGACTTGAA	6540
CCAAGAGTAT TATGGTTTGA GTAAGGAAGA CAATCCTGAA ATCCAATACG AGTGGGCTCG	6600
CATTCACAC TTCTACTATA ACTACTATGT ATATCAATAT TCAACTGGCT TTGCGGCCGC	6660
CTCAGCCTTG GCTGAAAAA TTGTCCATGG TAGTCAAGAA GACCGTGACC GCTATATCGA	6720
CTACCTCAAG GCAGGTAAGT CGGACTATCC ACTTAATGTC ATGAGAAAAG CTGGTGTGGA	6780

798

TATGGAGAAG	GAAGACTACC	TCAACGATGC	CTTTGCAGTC	TTTGAACGCC	GTTTAAATGA	6840
GTTTGAAGCC	CTTGTGAAA	AATTAGGATT	GGCATAAAAT	GGTTGAATCG	TATAGTAAGA	6900
ATGCTAACCA	TAACATGCGT	CGTCCTGTCG	TCAAAGAAGA	AATTGTAGAC	TTGATGCGTC	6960
AGCGTCAAAA	GCAGGTCACA	GGTTTCTTGA	AAGAATTGGA	AGACTTTGCC	CGCAAGGAAA	7020
ATATTCCCTAT	TATTCCTCAT	GAAACGGTTG	CTTATTTCCG	TTTTCTTATG	GAAACCATGC	7080
AGCCTAAAAA	TATTCTGGAA	ATTGGGACGG	CTATCGGTTT	TTCAGCTCTC	TTGATGGCTG	7140
AACATGCGCC	AAATGCTAAG	ATTACAATA	TTGATCGTAA	TCCAGAAATG	ATTGGTTTTG	7200
CCAAGGAAA	TTTTGCCAG	TTTGACAGTC	GCAAGCAAAT	CACTCTCCTA	GAGGGAGATG	7260
CGGTGGATGT	CTTATCTACA	CTGACAGAGT	CTTATGATTT	CGTCTTTATG	GATTCTGCCA	7320
AGTCTAAATA	CATCGTCTTT	CTGCCAGAAA	TCCTCAAACA	TTTGAAGTT	GGTGGTGTGG	7380
TTGTCTTGA	TGATATTTT	CAAGGTGGTG	ATGTTGCCAA	GGATATTATG	GAAGTCCGTC	7440
GTGGTCAGCG	AACCATTTAT	CGAGGCCTTC	AAAAATTATT	TGATGCAACC	TTAGACAATC	7500
CAGAACTCAC	CGCAACATTA	GTGCCCTTAG	GAGATGGTAT	TCTCATGCTT	CGTAAAAATG	7560
TAGCAGATGT	TCAACTGTCT	GAAAGCGAAT	GATTTTCAGA	AAAATTTAAG	AAAAAATAGT	7620
AAAATAGATA	GAGTAACACT	TATCTCAAAG	GAGTAGACAT	GAAGAAAAAA	TTATTGGCAG	7680
GTGCCATCAC	ACTATTATCA	GTAGCAACTT	TAGCAGCTTG	TTCGAAAGGG	TCAGAAGGTG	7740
CAGACCTTAT	CAGCATGAAA	GGGGATGTCA	TTACAGAACA	TCAATTTTAT	GAGCAAGTGA	7800
AAAGCAACCC	TTCAGCCCAA	CAAGTCTTGT	TAAATATGAC	CATCCAAAAA	GTTTTTGAAA	7860
AACAATATGG	CTCAGAGCTT	GATGATAAAG	AGGTTGATGA	TACTATTGCC	GAAGAAAAAA	7920
AACAATATGG	CGAAAACTAC	CAACGTGTCT	TGTCACAAGC	AGGTATGACT	CTTGAAACAC	7980
GTAAAGCTCA	AATTCGTACA	AGTAAATTAG	TTGAGTTGGC	AGTTAAGAAG	GTAGCAGAAG	8040
CTGAATTGAC	AGATGAAGCC	TATAAGAAAG	CCTTTGATGA	GTACACTCCA	GATGTAACGG	8100
CTCAATATCAT	CCGTCTTAAT	AATGAAGATA	AGGCCAAAGA	AGTTCTCGAA	AAAGCCAAGG	8160
CAGAAGGTGC	TGATTTTGCT	CAATTAGCCA	AAGATAATTC	AACTGATGAA	AAAACAAAAG	8220
AAAATGGTGG	AGAAATTACC	TTTGATTCTG	CTTCAACAGA	AGTACCTGAG	CAAGTCAAAA	8280
AAGCCGCTTT	CGCTTTAGAT	GTGGATGGTG	TTTCTGATGT	GATTACAGCA	ACTGGCACAC	8340
AAGCCTACAG	TAGCCAATAT	TACATTGTAA	AACTCACTAA	GAAAACAGAA	AAATCATCTA	8400
ATATTGATGA	CTACAAAGAA	AAATTAAAAA	CTGTTATCTT	GACTCAAAAA	CAAAATGATT	8460
CAACATTTGT	TCAAAGCATT	ATCGGAAAAG	AATTGCAAGC	AGCCAATATC	AAGGTTAAGG	8520
ACCAAGCCTT	CCAAAATATC	TTTACCCAAT	ATATCGGTGG	TGGAGATTCA	AGCTCAAGCA	8580

799

GTAGTACATC AAACGAATAG TCCAAATCAA TGAGTCAGGG AAAAACTCG ACTTCAGGAA	8640
AAAATGAAGC AAACATTCCT ACAATAAAAC GCATAGTACA AGGTTGTAC TGCCCCCAA	8700
AAAGTTAGAC AATTAATTTA TCCGAAGGAT TTAGTTCTGT ATTGCACAGA GCTAAGTCCT	8760
TTTAGTTTTA TCTTAATCT CTATTGTTG TAATAATCAA TATAGTCTAT AATGGCTCGT	8820
TCCAATTGAT TAAGTGATT AAATGTTTT TCATAGCCAT AAAACATTTC GGATTTTAAA	8880
ATGCCAAAGA AAGATTCCAT CCTACCGTTG TCTTGGCTGT TGCCCTTACG TGACATGGAT	8940
GCTTGAATTC CCTTACTCTC TAGGAAGCGA TGATAAGAAT CGTGTGATA TTGCCAGCCT	9000
TGGTCACTAT GGAGAATCGT ATTCTCGTAG TGCTTCTCTT TGAATGCCTG TTCCAACATT	9060
AACGATCAAT CAATTTAATC ATGTACCTAA GATTAGAATT GTTTATCCCA AATTTATTTG	9120
AAAGCTTCTC TAAGCTATAT CCTTGTTTT TAAGTTCATA GATCTGAAC TATCATCAT	9180
AAGTTAATTT CATAATAAAA ACACCCCAA AGTTAGATT TTTCTGTCTA ACTTTGGGG	9240
TGTAGTTCAT GTACACCTGA TATGATGCGT TTTATAATTT TAAAGACTTT TTGACCAGCC	9300
TCATTTTTTT AACTTGATAC TCAGTGAAAA GCAAAGATTA AACTAGGAAG CTAGCTGTAG	9360
GCTGCTCAAA GAACAGCTTT GAGGTGTAG ATAAACTTG TGAGGTCACC AACATATATA	9420
ATGTGAAGCT GACGTGTTT GAATAGATT TAGAAGAGTA TGAGTCTGGA AGTTTAAATG	9480
GATAATGCAA GATTCCATAG AATGGGTAAG CTAGAGTTCT TATGTGAAGA GTTTGGGCAT	9540
AAACTTTTAC CTTTCTCTC CTACTCATCT TAGTATAGAA AAGTGAATCT GAAATAGTAC	9600
ATAACTGCTT CTAACACATT CTATATAATT GATTTAAATT CTCAAATCAT ATTATTCACT	9660
TCTTATTTCA TTTTGTCTA CAATCCTGTT GAGAAGACAC GTGTTTATAT CAAAAGGTA	9720
TTGGCAAGTT GCAATACCTT TTTACGAGGC TCTGTTGTCT TATTTTGTGTT TCAACTGACT	9780
ATATCTCCTA TGGTCTAGT TCAGAAGGCT AGGCTATAAT TATGATTGAT AAGAAGTATC	9840
ATTCCAAGTA TTGGGAGTGA ATGTTTCAAA ATCATGGGTT TCTATAATGG TCAGGCTGGC	9900
ATTTGCTAGA CCGCATCTT TACGAAGAAG TGGTCTTTA TAGCCTAGGA GAGTACGAAG	9960
ACTGGCAGTA AGATTGGCGC CGTGTCGAC AATTAGAATA CGTTCAGCTG GACTATCTTT	10020
TAATGATTTG ATAAATTGGA TGGTCCGTTG AGTTGTAATA TAGAGGGATT CGGCTCCGAA	10080
CATTGAGTG TCAAATTGAG CAAGATTGTA ACGAAAAGCC TGGATTTGTT GCGGGTAAAT	10140
AGCTTCCAAG GTTGCAATTT TCAAACCTTC TAACTTCCA AGTTGCCATT CACGGAGATT	10200
AGGAACGATT TCTAAAGAAC AGGGGGTATA GAGTTGACTT TGGATAATCT CAGCAGATT	10260
GACCGCTCGA GGTAAATCAC TTGAATAAAT CTGATCAAAA GGAATTCCTT TGAGATACTG	10320

800

ACCAAGTCCT TTTAGGGTTT CAATGGATTC AGGAAGAAGA GGAGAATCAC CACTAGCACC	10380
TTGAAAACGA CCTTCTTGGT TCCAGAGGGT ACGACCGTGG CGGACAAAGT AGAGTTTCAT	10440
TACTTGATGT CCTCCAAAT ATCTACAAAG TCTGCCTTTA CAAAGCTAGC CAAGTCTTGT	10500
GGCGCGACGA TAATGCTGTG TCCGACTTCG CCTGCAGAGA CAATCATTG ATCCAAATCT	10560
AGAGCAATTT TATCGATAAA AATGGGATAA TTGTGTTTCT GACGAATTC GACAGGATTA	10620
TTGGCTCCAT GAATGTAACC AGTTGTTTTT TCTAAGTCCT TTTGTGGAAT CATGCTCACT	10680
TTTTTATTGC CAGAAATTTT AGCTAGTTTC TTTTCAGACA AGTGTGAGT GATAGGGACA	10740
ATTCCGATAA TCGGTCCGGT CTTGTCTCCC AAAAGCGCCA AGGTTTTGAA AATCTGATCT	10800
CGTTCATAAC CTTGAGGAAG CTCTCCTTCT AGGGCATTGA TTTGAATCCC CTGATGAGGG	10860
ATAGCTGCTT TAGATAGGAT TTGTTCACC AATGTTTTT TGATTTTAAC TTTTTTGCC	10920
ATTATTTATA TTTATCTCC AATTGACTCA TCCAAATACC AAGCCAGATT CCCAGCGCAA	10980
AGAAGAAGGC GATGATGACA TAACCGACAA GTGAAAGTCC TGTGTATTGG ATACTTTCAG	11040
CGTTTCCTGC ATTTGGAATT AAGATCAAAA GGGTACTTGA TAGGACGATA CCGATGATGA	11100
AATGATAGAC GAACTGTTTA CGGAGTTCTT CTAGTTCTCC GTCCGTCCAA GCGTAGGCCA	11160
CTTCTTCTTT CTTGCCTTTA CCTTTGGACA TCTTGTAAG AGGTGGGAGG GCAATATAGA	11220
CATGACCTGC CTCGACTAGC GGACGCATGT AACGGTAGAA AAATGTCAAG AGCAAGGTCT	11280
GGATATGGGC ACCGTCGGTA TCCGCATCG	11309

(2) INFORMATION FOR SEQ ID NO: 109:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5548 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

CCATAGTCTA ACAAGTCTTT GTAAAGGTTT ATCCCTGATT CATGTAAAGA TTGTGTAAG	60
AATCAAAAAA AGCCACTTTT GAAAAATGGC TGCTCCTAAA AATAGCTTTA AAAATTATTA	120
GTCTGTGCG AAAGATTGGT TAGGAAGAAA AATCGTGAAG CAACTGCCTC TGCCAAGCTG	180
ACTCGTCACC GTGACTTGGC CACCTAATAA TTGACTGAGT TCTTTGACAA TGGCAAGGCC	240
AAGACCAGTG CCACCAGTTT GTCTGCTTCG ACCTTTATTA ACTCGGTAAA AACGTTCAAA	300
AATACGATCC TGCTCTAATT GACTAATACC AATCCCTGTA TCTGATACAG AAATCTTAAT	360
GCCTTCGTTT ACCTTTTGGG TCTTGACCTC AATTTTCCC CCTTGTTTCTG TGTAAACGGAT	420

801

GGCATTGGAT AAAAGATTGA GTAAGATTTG GGAAAGTAAT TGACTATCTG ATACGAGGGT	480
GACATCATCT GGCACCTGCA CCTTTAGCTG TAAATCCTTC TTCTTGAGCT GAGGTTGCAA	540
GCTTTGAGTC AAATCCTGTA CAAATTCCTG CAAAGAAAGG GTCGTCCATT GTATAGGCAT	600
TTGTTGAGCC TTAGATAAGG TAAGAAGATG CTCAACAATA TGCTCAAGAC GCAAACCTTC	660
TTGTAAATA ATGTCTAGAA AGTCATCCTT GAGCGCTTCT TCTTCAGCTG ACATCCCCTT	720
AATGGTTTCA GCAAAGCCCT TAATCGAAGT AACTGGTGTC CTCAATTCAT GGGAGGCATT	780
TGAGACAAAG GCTAAATTTA ACTTTTCATA AGTTCTAATC GTTGTAAAT CATATAGCAA	840
GACGAGCACA GCTTCACAG ATTGGGTGGG GCTAAAAACG GGAACGCTG TCACTTCTAA	900
AATCAAGTCA CCTCATGAA ACCCACTTAC TTCTTGTTTT AACCTTGTTT TTGTATCAAA	960
GGCTTGGTGA ACTAAATTC GAATATCCAT CCGTTTGAGG TCATCAAGTG AACTTATGTC	1020
GCCGTCCACA TCGGGAAAAT AATGAGGCAG AGAGCGACTG GATAATAACA TCTGACCTTG	1080
AGCGGAAACT AAAACGTCC CCATGGTTAG GTGCGACAGA AGAACCTCCA TTGTTTCGGC	1140
TAGATCCTTG TATTGCTGAT CCTGTGGGA GACTTTGGTT TTTAGGCCAG ACACATACTG	1200
AGCCAAAGAC TTAAAGTCTT CTGCCCCCTT TTCTAAAAAG TATCACTAC TGGTCAAGAG	1260
AGGTTGGTGC AAGGTCTCAA AAGCAACTTC CCATTTCCAA AGGCAAAAGA GCCAGTAGCC	1320
ACCTAGTCCC AAAGAAAGG CTAGAAGAAA GAGACCGATG CCTTTACTGA TCCAAGTTAA	1380
TGCCATCCCT GCAATCAGAA TGAGGCTAAC ACTTAGATTG ACTAGCCAAA ATTGAAGGTA	1440
GCGTTTCATC TATAACTCCT TGAACCTATA ACCATAACCC CGAATGGTTC GAATAAATTG	1500
AGGGGCTTTA GGATTGTCTT CAATTTTTTC CCTCAACTTA CCAATATGAA CGTCCACCAA	1560
ACGTGTTTCC TGCCCAAAGT CATACCCCA GATACGTTCC AAAAGACGCT CTCTAGTCAG	1620
TGTCATGTTG GGATGTTTCA TAAGATAGAG CAAGAGTTCA AATCTTTTG GGGTCAAAC	1680
CAGTAACTTA TTCGCCTTGT AGACTTCATG ACGCTCAGG TATACTTTCA AGGTCCCAA	1740
TAGCCAAGAA TCGTCAGCGA TATTATCTGA ATCATCTCCT TCTTGTTCTC CTTTAGTTTCG	1800
CCTGAGGACA GCCTTGACAC GCGCCAGCAA TTCTCTAGGG CTAAGAGGCT TGGTCAGGTA	1860
GTCATCAGCC CCTAATTCOA AGGCCAAAAC CTTATCAAAT TCATCACTTT TCGCAGAAAC	1920
CATCATAATT GGAGTTTGA CGCCTTTGGC TCTCAGCCGC TTACAAACTT CCATGCCATC	1980
TAATTCGTGT AACATGATAT CAAGCAAGAT AAAATCAAAG GGTCTGTGTT CTGCCAAAGC	2040
TAAGGCCTTC CGTCATTG TCACCAATTG AGTAGAAAAG CCTTCCTTAC TTAAATGGTA	2100
GTCAAGCAAT TTCAGAAATG GTTCTTCATC ATCCACTAAT AAGACTTGTT TTGTATCTA	2160

802					
TTATCTCCTA	TTGGTAACAT	TATAACACAA	TTATCAGAAA	TCCTAACATT	GCTAAATCAG 2220
ATTAAATTG	CCTATCAAGA	CTAGTATCTG	GTCAAACGCT	CAATCATCTC	CTTGTGCTCT 2280
GGATAGGTCG	CCAGTAGATC	TACCCTTTCA	AATAATTCAA	AATCCTCAAA	TTCAAAACCA 2340
GGAGCAACAA	GACAAGAAAC	CAGAGCATCA	TCCTTATCAA	CTGTTGATCC	CCAAATAGTG 2400
CCCTTAGGAA	CACAGTAGTG	AAGTTGTTGC	CCTTTGGATA	TGTCCAGGCC	TAAAGTGACT 2460
GCTTCGTAGT	GACCATCTGC	TGTAATCATG	TGAACAGTAA	GTGGGGATCC	TGCATGAAAA 2520
TACCAGATTT	CATCTGCTGT	CAATCGGTGA	AAATGTGAAG	GATTTCGTTT	TTCTAATAAG 2580
AAATAAATAC	TGGTATAAAG	CGCCCTTCCC	TTACCAGCAA	GGTTTATAGT	GTCTGAAGCT 2640
TTTTTTGTTT	GTCTAAAATA	GCCACCTTCA	ATATGGGGAG	CTAACTCTAG	AGTTCCTTATC 2700
AAGCTTCTT	TATCCGTCGG	AGCCAATGGG	TTGAAGTAAC	TCTTGTTCAA	AGTGGTTTTA 2760
CGATTTCAAG	AACTCCTCTC	AGTTCTGAGG	ACACGGTAAT	GATTGATGCG	ACGGAAGTAC 2820
AAATCAATCG	CCCTAAAAAA	AGAATTAGCG	AATGATTCTG	GTAAAAAAA	TGCCACGCTA 2880
TGAAGGCTCA	AGCGATTGTC	ACAAGTCAAG	GGAGAATTGT	TTCTTTGGAT	ATCGCTGTGA 2940
ACTATTGTCA	TGATATGAAG	TTGTTCAAAA	TGAGTCGCAG	AAATATCGGA	CAAGCTGGTA 3000
AAATCTTGGC	TGACAGTGGT	TATCAAGGGC	TCATGAAGAT	ATATCCTCAA	GCACAACTC 3060
CACGTAATC	CAGCAAACTC	AAGCCACTAA	CAGTTGAAGA	TAAAGCCTAT	AACCATGCGC 3120
TATCCAAGGA	GAGAAGCAAG	GTTGAGAACA	TCTTTGCCAA	AGTAAAAACG	TTTAAATGA 3180
TTTCAACAAC	CTATCGAAAT	CATCGTAAAC	ACTTCGGATT	ACGAATGAAT	TTGATTGCTG 3240
GCATTATCAA	TCATGAACTA	GGATTCTAGT	TTTGCAGGAA	GTCTATTATT	TGGTTAGGTG 3300
AATTAGTGAA	GCGTTTAGGC	AAGTGTCTCT	GGTTACGACG	TCATGGACTC	TAAATCGATT 3360
ATATTTAGGG	GTCATGACTA	GTGAAGCAGT	TAGCTAGTTC	GCATATAAGC	GGCTAGCGTC 3420
TAACAATTAG	GAACTTTAGT	TCCAATAACT	TTAAGATTAC	GACGTTT TAG	GACATAAATC 3480
GATCATATTT	ATGTCCTAAA	ACTAGTGAAG	CGCCTAGCCA	AAGTCCGAAT	AGGATTTGGC 3540
GTTAGTTACT	TAGATTGCTT	TGCAATCAAG	TAACTTTGGC	GATTTACATC	TTCTCTGGCG 3600
CTTCTACTCC	AAGCAAGCGA	AGGGCTTCTT	TGAGAACGAC	TGCGGTTGCG	TAGCTGAGGG 3660
CTAGACGGCT	GTCGCGTTCT	GGGCTTTCAT	CCAAGATACG	TGTATGTGCA	TAGTATTTGT 3720
TAAAGGATTG	AGCCAGGCTA	ATTGCAAATT	TAGCAATGAT	AGAAGGTTCA	AAGTTATCTG 3780
CCGCACGGTT	GATAATACGT	GGGAAGTCTT	GAATGAGTTT	AATGATTTCC	CAGCTTTCAG 3840
TATCATTCAA	GCTATAGTTG	CCAGCTGTTT	CTGGTTTGAA	ATCGGCTTTG	CGTAAGATAG 3900
ATTGGATACG	AGCGTAGGCA	TATTGAACGT	AAGGTCCAGT	TTCACCCTCG	AAGGATACCA 3960

803

TAGCCTCTAG	GTGGAAGTCG	TATCCATTG	TACGGTCGGT	TTTGAGGTCA	TAGAATTTAA	4020
TGGCTCCAAT	CCCAACAGCA	TGTGCTACTT	GGTCTTTGTT	TTCTAGTTCA	GGATTTTGTAG	4080
CCTCGATTG	GACCTTGGCA	CGGCTAACAG	CCTCTGCAAC	AGTAGGCTCT	AGCAAGATGA	4140
CATTCCCTTT	ACGAGTAGAG	AGTTTCTTCC	CTTCTTTTGT	AACCAAACCA	AAAGGAACGT	4200
GAGTAATGTC	GTCACTCCAG	TCGTAGCCCA	TCTCTTGCAA	GACAGCTTTG	AGCTGTTTAA	4260
AGTGGGCAGA	TTGTTCTTGA	CCAACGACAT	AGATAGATT	AGCAAATTGG	TATTCGTTT	4320
TACGGTAGAG	GGCTGCAGCC	AAGTCACGTG	TGATATAGAG	AGTTGCACCA	TCAGACTTCT	4380
TGATGAGGGC	TGGATGTTCA	ATTCCATATT	TCTCAAGATT	CACAACTTGG	GCACCTTCTG	4440
ATTCAAGAAG	TAGTCCTTTT	TCAGAAAGAA	TGTCTACAAC	TGCATCCATC	TTATCATTGT	4500
AGAAGGCTTC	TCCGTTATAG	CTGTCAAATT	CAACCTTCAA	TTCATTGTAA	AGGCGGTTAA	4560
ATTCCACTAA	ACTTTCATCG	CGGAACCATT	GCCAAAGAGC	GAGAGCTTCC	TCATCTCCAT	4620
TTTCAAGTTT	ACGGAACCAT	TCGCGCGCTT	CTTCATCCAA	GCTAGGGTCA	TTTTCAGCTT	4680
CAGCGTTGAT	GCGGACATAG	AGTTTAAGGA	GTTTCATCGAT	TGGATGAGCT	TTTACAGCTT	4740
CTTCGTCGCC	CCATTTTTTG	TAGGCAACAA	TCAACATCCC	AAATTGTTTA	CCCCAGTCTC	4800
CCAAATGGTT	GACCTTGACC	GTTTGATAAC	CGATTTTTTG	GAAAATATGT	GACAAGCTAT	4860
CTCCGATAAC	AGTTGAACGC	AGGTGGCCAA	TAGAAAATGG	TTTAGCGATA	TTCGGACTAG	4920
ACATGTCGAT	AACAACATTT	TCTTGTTTAC	CAATATTTTG	GTCAGCATAG	TGTTCTTTTT	4980
CAGTGGAAC	AGCTTGCAAT	ACTTGAGCAG	AAATGGCAGA	TTTATCAAGG	AAAAAGTTAA	5040
CGTAAGGTCC	TGTTGCGACA	ACTTTTTCAA	AGGCTTGGCT	GTTCATTTTT	TCAGCCAGTT	5100
CAGCCGCAAT	CATTTGTGGT	GCTTTACGTT	CGACTTTTGC	AAGAGAAAAA	GCAGGGAAAG	5160
CAATGTCTCC	CATTTCTGAG	TTTTTAGGGG	TTTCCAGTAA	CTTTAAAATA	GCCTCTTGGT	5220
CCAGGCTATC	AATGATGCTA	GATAATTGCG	TAGCAATCAA	TTCTTTTGTA	TTCATTAAGA	5280
GCTCCTTTTT	GGACTTTTCT	ACTATTTTAT	CACAATTTTA	AAGAAAGAAG	AAAAAATTTT	5340
TGAAATCTCC	TGTTTTTTTG	GTATAATATG	GTTATAAATA	TAGTTATAAA	TATGCACGCA	5400
AGAGGATTTT	ATGAGAAAAA	GAGATCGTCA	TCAGTTAATA	AAAAAATGA	TTACTGAGGA	5460
GAAATTAAGT	ACACAAAAAG	AAATTCAGA	TCGGTTGGAG	GCGCACAATG	TTTGTGTGAC	5520
GCAGACAACC	TTGTCTCGTG	ATTTGCGG				5548

(2) INFORMATION FOR SEQ ID NO: 110:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3132 base pairs

804

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

TACCCGGTAG TCTTAGCAGA CACATCTAGC TCTGAAGATG CTTTAAACAT CTCTGATAAA	60
GAAAAAGTAG CAGAAAATAA AGAGAAACAT GAAAATATCC ATAGTGCTAT GGAAACTTCA	120
CAGGATTTTA AAGAGAAGAA AACAGCAGTC ATTAAGGAAA AAGAAGTTGT TAGTAAAAAT	180
CCTGTGATAG ACAATAACAC TAGCAATGAA GAAGCAAAAA TCAAAGAAGA AAATTCCAAT	240
AAATCCCAAG GAGATTATAC GGAATCATT GTGAATAAAA ACACAGAAAA TCCCAAAAAA	300
GAAGATAAAG TTGTCTATAT TGCTGAATTT AAAGATAAAG AATCTGGAGA AAAAGCAATC	360
AAGGAACTAT CCAGTCTTAA GAATACAAAA GTTTTATATA CTTATGATAG AATTTTAAAC	420
GGTAGTGCCA TAGAAACAAC TCCAGATAAC TTGGACAAAA TTAACAAAT AGAAGGTATT	480
TCATCGGTTG AAAGGGCACA AAAAGTCCAA CCCATGATGA ATCATGCCAG AAAGGAAATT	540
GGAGTTGAGG AAGCTATTGA TTACCTAAAG TCTATCAATG CTCCGTTTGG GAAAAATTTT	600
GATGGTAGAG GTATGGTCAT TTCAAATATC GATACTGGAA CAGATTATAG ACATAAGGCT	660
ATGAGAATCG ATGATGATGC CAAAGCCTCA ATGAGATTTA AAAAGAAGA CTTAAAGGC	720
ACTGATAAAA ATTATTGGTT GAGTGATAAA ATCCCTCATG CGTTCAATTA TTATAATGGT	780
GGCAAAATCA CTGTAGAAAA ATATGATGAT GGAAGGGATT ATTTTGACCC ACATGGGATG	840
CATATTGCAG GGATTCTTGC TGGAAATGAT ACTGAACAAG ACATCAAAAA CTTTAACGGC	900
ATAGATGGAA TTGCACCTAA TGCACAAATT TTCTCTTACA AAATGTATTC TGACGCAGGA	960
TCTGGGTTTG CGGGTGATGA AACAATGTTT CATGCTATTG AAGATTCTAT CAAACACAAC	1020
GTTGATGTTG TTTCGGTATC ATCTGGTTTT ACAGGAACAG GTCCTGTAGG TGAGAAATAT	1080
TGGCAAGCTA TTCGGGCATT AAGAAAAGCA GGCATTCCAA TGGTTGTTCG TACGGGTAAC	1140
TATGCGACTT CTGCTTCAAG TTCTTCATGG GATTTAGTAG CAAATAATCA TCTGAAAATG	1200
ACCGACACTG GAAATGTAAC ACGAACTGCA GCACATGAAG ATGCGATAGC GGTGCTTCT	1260
GCTAAAAATC AAACAGTTGA GTTTGATAAA GTTAACATAG GTGGAGAAAG TTTTAAATAC	1320
AGAAATATAG GGGCCTTTTT CGATAAGAGT AAAATCACAA CAAATGAAGA TGGAACAAAA	1380
GCTCCTAGTA AATTAAAATT TGTATATATA GGCAAGGGC AAGACCAAGA TTTGATAGGT	1440
TTGGATCTTA GGGGCAAAAT TGCAGTAATG GATAGAATTT ATACAAAGGA TTTAAAAAAT	1500
GCTTTTAAAA AAGCTATGGA TAAGGGTGCA CGCGCCATTA TGGTTGTAAA TACTGTAAAT	1560

805

TACTACAATA GAGATAATTG GACAGAGCTT CCAGCTATGG GATATGAAGC GGATGAAGGT	1620
ACTAAAAGTC AAGTGTTTTT AATTTTCAGGA GATGATGGTG TAAAGCTATG GAACATGATT	1680
AATCCTGATA AAAAACTGA AGTCAAAAGA AATAATAAAG AAGATTTTAA AGATAAATTG	1740
GAGCAATACT ATCCAATTGA TATGGAAAGT TTTAATTCCA ACAAACCGAA TGTAGGTGAC	1800
GAAAAAGAGA TTGACTTTAA GTTTGCACCT GACACAGACA AAGAACTCTA TAAAGAAGAT	1860
ATCATCGTTC CAGCAGGATC TACATCTTGG GGGCCAAGAA TAGATTTACT TTTAAAACCC	1920
GATGTTTCAG CACCTGGTAA AAATATTAAA TCCACGCTTA ATGTTATTAA TGGCAAATCA	1980
ACTTATGGCT ATATGTCAGG AACTAGTATG GCGACTCCAA TCGTGGCAGC TTCTACTGTT	2040
TTGATTAGAC CGAAATTAAA GGAAATGCTT GAAAGACCTG TATTGAAAAA TCTTAAGGGA	2100
GATGACAAAA TAGATCTTAC AAGTCTTACA AAAATGCCCC TACAAAATAC TGCGCGACCT	2160
ATGATGGATG CAACTTCTTG GAAAGAAAAA AGTCAATACT TTGCATCACC TAGACAACAG	2220
GGAGCAGGCC TAATTAATGT GGCCAATGCT TTGAGAAATG AAGTTGTAGC AACTTTCAAA	2280
AACACTGATT CTAAAGGTTT GGTAAACTCA TATGGTTCCA TTTCTCTTAA AGAAATAAAA	2340
GGTGATAAAA AATACTTTAC AATCAAGCTT CACAATACAT CAAACAGACC TTTGACTTTT	2400
AAAGTTTCAG CATCAGCGAT AACTACAGAT TCTCTAATG ACAGATTAAA ACTTGATGAA	2460
ACATATAAAG ATGAAAAATC TCCAGATGGT AAGCAAATG TTCCAGAAAT TCACCCAGAA	2520
AAAGTCAAAG GAGCAAATAT CACATTTGAG CATGATACTT TCACTATAGG CGCAAATTCT	2580
AGCTTTGATT TGAATGCGGT TATAAATGTT GGAGAGGCCA AAAACAAAAA TAAATTTGTA	2640
GAATCATTTA TTCATTTTGA GTCAGTGGAA GCGATGGAAG CTCTAAACTC CAGCGGGAAG	2700
AAAATAAACT TCCAACCTTC TTTGTGCGATG CCTCTAATGG GATTTGCTGG GAATTGGAAC	2760
CACGAACCAA TCCTTGATAA ATGGGCTTGG GAAGAAGGGT CAAGATCAAA AACTACTGGGA	2820
GGTTATGATG ATGATGGTAA ACCGAAAATT CCAGGAACCT TAAATAAGGG AATTGGTGGA	2880
GAACATGGTA TAGATAAATT TAATCCAGCA GGAGTTATAC AAAATAGAAA AGATAAAAAT	2940
ACAACATCCC TGGATCAAAA TCCAGAATTA TTTGCTTTCA ATAACGAAGG GATCAACGCT	3000
CCATCATCAA GTGGTTCTAA GATTGCTAAC ATTTATCCTT TAGATTCAAA TGGAAATCCT	3060
CAAGATGCTC AACTTGAAAAG AGGATTAACA CCTTCTCCAC TTGTATTAAG AAGTCAGAA	3120
GAAGGATTGA TT	3132

(2) INFORMATION FOR SEQ ID NO: 111:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14672 base pairs

806

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

CGAGATTCTTCT TTAAATGAAC TACGTGAAAT CTACCCATCA TCCAGATCTG GATATTCTCT	60
CCTATCTATA AGTAAAGTTT TAGGAGATTT TAATATAAGT TCTCATGCTT TTAAAGCTTC	120
GGTAAGAGAT TTTAAACCGC TCAGTTTCCC ACTCATTGTC TTCTGGGAGA GTTCTCATT	180
TATTATTCTT GAAAAATTA GTAAAAACAA GTTTTATATT TTAGATCCTG CAAAAGGCAG	240
GCAGAGAATG TCAATAAGTG AATTTGAAAG GCATTATTCA AATATCATTT TAACATTAA	300
AAAGTTAGAT AGCTTTATGT CTCGTAAAGA TAATAAGAAG TCGCCTGTTT TAAAGTATTT	360
TTTAAAGTAT AGGAATAAGC TAGGGATTTT ATTTTGTGTA ACAGCATTAT TGTATGTAAT	420
ACAATCATTG GTACCTATAG CTAATAGATA CATAATTGAC ACGAATTTCAGGACGATTTC	480
GTATTCGTCT AGAATGTTAT TTACTATATT ATTTATATTT ACTGTTTCAT TCTCACTAAT	540
GTATTTATTA AGACAGATAT ATGTTGCATC CTTAAATAT ATAATGGATA AAGAGATTAG	600
CTATGATTTT ATGAAACATT TGATATATTT ACCTTACAGT TTTTATGAAA AACGTACTTT	660
AGGGGATATA CTTTTTAGAG CTAACCTAT TGTTTATATA AGAGAAATAC TATCAAATAA	720
TTTTATAGCA GCTATACTTG ATTTGTTAAT GATTGTGGTT TATGCTGTGG TTTTATTAG	780
CTTTTCTAAG TACATGGTAA TCTTTTAAAT ATCACTAAGT CTAGCTCTAT CTATTGTAAT	840
GTATCCAATC ATAAAAATCT CAAAAATTT AATTGATAAA AATATAAAAG AAAAGGTTAA	900
TGTTCAAAAT ATTACTTCCG AAGTAATTT TAAAAATAGT GATATTAAAGC TAACTGGAGA	960
AGAGGAATTT TGGATTAAAC AATGGGATAA TTTAATACA AAACAGCTCA TCATAGGTCG	1020
AAAACCTGAT ATACATTTAT CAATTGTTAG TAGTATAACG AATGTTTAC AAATTATTCT	1080
CCCTGTTTTG ACCCTTATTG TAGGTGTAAT TATAAAAACA TTCGAACAAT TGACGTTAAG	1140
ACAAATTGTA GCAATAAGTA CAGTCTCACC ATACTTTATT TCTCCTATAA TTTCTTTAAG	1200
TGATAACTAT ATACAATTAA TGTATTAAA GGGATATTTT TTAAGAATAG AGGATGTGTT	1260
TAATACTAAA TCCGAATTAA TTCCAGAAAG AGTCAGTCAA GATATAAAAT TTGATAAAAA	1320
AATAGAATTA AAAGATATTT GGTATAAATA TGGATTATTT GATGATTATG TTTTGAAAGG	1380
AATAAATGTT ACTATTAAAA AAGGAGAAAC TGTTGCTATT GTTGGAGAAT CAGGTTTCAGG	1440
TAAGAGTACA TTAGCTAAAA TTTATTAGG TTTATTAGAA CCTAATATTG GTTCAATAGA	1500
AGTTGATGGA GTAGAAAAAG AAGAAATTGG TCAAACATTG TATAGAAAGA TTTTGGAGC	1560

807

AGTGTTACAA AATTCAACCC TAAGTTATGG TACCTTAAGA GAGAATTGGA CATTTGGACA	1620
CTTTGTTTCA GATGAAGAAT TAATGACAAA TCTAAATTCA ATTGGTCTTA GCAATGTAGT	1680
TAAATCTTTA CCTCTGGAT TAGAGACAA CATCGCTGAA GAAGGTAATA ACTTTCTGG	1740
AGGGCAGCAG CAAATGATAC TTTTAGCTCG TTGTCTTTTG TCGAAACCTT CGGTAGTTGT	1800
TTTGAGCGAA GCAACAAGTA GTTTAGATAA TTTATCTCAA CAAATTACAA CTTCTTACTT	1860
AAGTGAAATC GGTACCACTA AGATTTTAAT TGCCCATCGA CTAGATACTA TCAAGCTGTC	1920
AGATAAGATC TTAGTAATGC ATAATGGTGA AATTGTAGAG ATTGGGACCC ATAGAGAACT	1980
TCTTGAAC TAAGGCAATT GTATTCAAAT AATTAGTTTT TGATTTAAAG	2040
GGTAAATTTA TGAAGATTAT GAAAAAATAA TATTGGACTT TAGCGATATT ATTCTTTTGT	2100
TTGTTCAATA ATTCTGTAC TGCTCAAGAA ATACCTAAAA ATCTTGATGG CAATATAACT	2160
CACACTCAGA CTAGCGAAG TTTTCTGAA TCTGATGAAA AACAGGTGA CTATTCTAAT	2220
AAAAATCAAG AAGAAGTAGA CCAAATAA TTTCTGATTC AAATCGATAA GACAGAATTA	2280
TTTGTAACAA CAGATAAACA TTTAGAAAAA AACTGTTGTA AATTGGAAC TGAACCACAA	2340
ATAATAACG ATATTGTAA CTCTGAAAGT AATAATTTAC TAGGCGAAGA TAATTTAGAT	2400
AATAAAATTA AGGAAATGT TTCTCATCTA GATAATAGAG GAGGAAATAT AGAGCATGAC	2460
AAAGATAACT TAGAATCGTC GATTGTAAGA AAATATGAAT GGGATATAGA TAAAGTTACT	2520
GGTGGAGGCG AAAGTTATAA ATTATATTCT AAAAGTAATT CTAAGTTTC AATTGCTATT	2580
TTAGATTTCAG GAGTCGATTT ACAAATACT GGATTACTGA AAAATCTTTC AAATCACTCA	2640
AAAACTATG TCCCAATAA AGGATATTTA GGAAAAGAG AGGGAGAGGA AGGAATAATA	2700
TCAGATATTC AAGATAGATT AGGTCATGGT ACGGCTGTTG TAGCTCAAAT TGTAGGGGAT	2760
GACAAATTA ATGGAGTAAA TCCTCACGTT AATATTAACG TCTATAGAAT ATTTGGTAAG	2820
TCGTCAGCTA GTCCAGATTG GATTGTAAAA GCAATTTTGG ATGCTGTAGA TGATGGCAAT	2880
GATATTATCA ATCTTAGTAC TGGACAATAT TTAATGATTG ATGGAGAATA TGAGGACGGA	2940
ACAAATGATT TTGAAACATT TTTGAAGTAT AAAAAGGCTA TTGATTACGC GAATCAAAAA	3000
GGAGTAATTA TAGTAGCTGC ATTAGGGAAT GACTCCCTAA ATGTATCAAA TCAGTCAGAT	3060
TTATTGAAAC TTATTAGTTC ACGCAAAAAA GTAAGAAAAC CAGGATTAGT AGTTGATGTT	3120
CCAAGTTATT TCTCATCTAC AATTTCTGGT GGAGGCATAG ATCGCTTAGG TAATTTATCA	3180
GATTTTAGCA ATAAAGGGA TTCTGATGCA ATATATGCGC CTGCAGGCTC AACATTATCT	3240
CTTTCAGAAT TAGGACTTAA TAACTTTATT AATGCAGAAA AATATAAAGA AGATTGGATT	3300

808

TTTTCGGCAA CACTAGGAGG ATATACGTAT CTTTATGGAA ACTCATTGTC TGCTCCTAAA	3360
GTTTCTGGTG CGATTGCAAT GATTATTGAT AAATACAAAT TAAAAGATCA GCCCTATAAT	3420
TATATGTTTG TAAAAAATT CTGGAAGAAA CATTACCAGT AAAAAATGGT ATAAAAGTGT	3480
TAAATATACC AAACGTATTG AGATATGATT TGAATATGTT ACAATTAGAA TATAAAAATG	3540
AACAAAGTTG GGATAGTTTC ATAGATAATG TTAATTTAAT TGAGTTGGAA GAGAGAATTC	3600
AAACTACTAT TGGAATTAAA CAAATAAACA CACACAATAT TATTACTATT GCCCGAGAAG	3660
GGTACTCTCA AAATTATTTA CCTAACACTT CAGAAAATAC ATATAATTCA TTACAAGTCA	3720
GTTTAGTTGG AGTATTACTA CTTTTTATAA GTATGGTAAA TATTTTATGG GCTAAAAAAA	3780
GTAATGAAA ATAAAATTG GAGCCCTCTG AAAAAGTAAG TCCTACAGTT CAACTAAAAT	3840
GAGTCAAAAG ATGAATCACC TTGATGTAGG GGAGTTTGTC TTATTGCTGC CTGAACACCT	3900
CCGTCAGAG GAAGAACATT ATAAATCTGT TTTTGAAGAC GACTTAACCA GTCGCATATC	3960
TAGTCAAGAT GAACGACAGC AAATGACTGC TACGGTAGGT TATTAGAAT CAGGTCAGGA	4020
TCGTTTTGTG TATAATACGA CCCCTATTTC TTACCAGCAG TTTTGAAG ATCCAATCAT	4080
CATTGTTATA ACACCCCAAT CAACTGGTCC ACAGTCCATT TTGTTTGGTA TAGACGCAGT	4140
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CATTGAAAT TGGGTCTCAG AAATGCAAAC AGGTTACCAC AACTACATCA CATTATTGGA	4260
TAATATCCAG AGGGAACGTT GGGTAATGCT AGCAGGAGCT GTGCTTGGGA TTGCAACTTC	4320
AATCTTGTG TTTAACAATA TGAATAGGCT CTACTTTGAA GAATTTAGAC GTGCCATTTT	4380
TATCAAACGC ATTGCAGGTC TCAGGTTCTT AGAAATCCAT CGCACTTATC TCTTTGCTCA	4440
ACTGGGTGTG TTTTACTGG GATTGTTGC GAGTGATTT CTTCAGGTAG AGATAGGAGT	4500
TGCTTCTTTA GTCTTGTTAC TCTTTACTGG TCTATCTCTT TTACAGTTAC ATGTCCAAAT	4560
GCAGAAAGAA AACAGATGT CCATGCTTGT TTTGAAGGGA GGTTAATATG ATTGAACTTA	4620
AACAGGTGAG TAAATCTTTT GGAGAACGAG AGTTATTTTC GAATCTTTCA ATGACATTG	4680
AGGCTGGAAA AGTCTATGCC TTAATTGGTT CAAGTGGTAG CGGAAAAACA ACCTTGATGA	4740
ACATGATTGG GAAATTAGAA CCTTATGATG GGACGATTTT TTACCGAGGT AAAGACTTGG	4800
CCAATTATAA ATCAAGTGAT TTTTCCGTC ACGAATTGGG CTACCTCTTC CAGAACTTTG	4860
GCTTAATTGA AAACCAAAGT ATTGAAGAAA ACCTTAAGCT AGGTCTCATT GGTCAAAAGT	4920
TGAGTCGGTC GGAACAGCGG TTGAGGCAGA AGCAGGCTTT AGAACAGGTC GGCCTGGTTT	4980
ATCTTGACCT AGATAAGCGC ATCTTTGAGT TATCGGGCGG AGAATCGCAA CGGGTTGCCT	5040
TGGCAAAAAT TATCTTAAAG AATCCACCCT TTATTCTGGC AGATGAGCCA ACAGCTTCAA	5100

809

TAGACCCAGC AACCTCTCAG TTGATTATGG AGATTTTGCT ATCTCTTCGA GATGATAATA	5160
GGCTAATCAT TATCGCAACA CATAATCCGG CAATTGGGA GATGGCTGAT GAAGTGTTCA	5220
CGATGGATCA TCTGAAATAA AAATCCTTGT TTTAATTGC ACGATGAGTT ACTGAAATAT	5280
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TTAATATTGA GGTAACCTTT TCTTGATAAA GGAAGAAATA ATGGAGAGGA AGTTAGAATG	5400
AAAAAATTCG ACAATTATAT TATTGAGAAG CCTTGCGATT CTAATTCAGA TAAACTGCAA	5460
AAAACTCTAA TAATTGAAAG TTTGGTAGAT GATATTTTGC AATTTTCTCT CAGAATCAAT	5520
AATAGTGTAG GAGAGATTTT CCTCCTACAA CCGTTTTAAA AGAAACTAT CTTTATTCCA	5580
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TTAGAATTTT CAAAAATTTAG AGCATTTTTC GCTTAGTAAT CTGTGTTGAA GGCTCAAAAC	5700
CTATGGTAAA AAAGTAGCTT TGAAAACGTA TTGCCCTCAA AGATTTAGTT AAATAATGAT	5760
TTAACACAAA AAGAAATTAT TGAAGTTCTG GAAAGATGTT GTTTCAGTAT TGAGAAAAGG	5820
TGGGAAAAAC TTGCGATTTT CACAGAGAAA GGAAGAAAAA GTATAGAAAT ATAGTCAATT	5880
GAAACAAGAA CAGGATAAAA GAACCTTTTG TGCCATATTT TTCTCCTTTC GCTTTACAAT	5940
TGGATTGAAC ACCTTTATTT TATCGCGTTT GGAGTTTTTT TGGTATAACC TTCGACGCAC	6000
ACCCGCATAG CGGGTGTTTT TTTTGTCTCG CACCTAACGG AGCGAGACAA ACTAATAGTC	6060
ACTTAATCAA AAAACGCACC ATATCAAAAA CTA AAAAGTT TGATATCATG CGTCATGTCT	6120
TAAACTAATT GACTATACTT TCTATTCAA TGAGCTTTTA ACCAATTGAT TGAGCCAATC	6180
CACTCTTAAA ACCAAAGAGC AATTTCTCGC TTAGCTGACT CTTCTGAATC TGAACCATGT	6240
ACAACATTTT GGATAATCTC ATTTTCTCCA GCAGCTTTTG CAAAATCACC TCGAATAGTG	6300
CCTGGTAAAG CTTCTTCTGG ACGAGTTGCA CCCATCATGG TCCGCCAAGT TTCGATTACT	6360
TTGGGACCAG AAATGACACC CACAAGAACT GGACCTGAAG TCATGAATTC ACGAATCGGT	6420
GGGTAAAAAC TCTGACCAAC CAAGTCCTGA TAGTGCTGGT CAATCAACTC TTCTGAAACC	6480
TGTGAACGAA ACTCCAATTT TTCGATTGTA AATCCACGTT GTTCGATGCG CTTTAACACT	6540
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CCCGTCTCCT TTGTCAGCTT CTTTCTTTTA TTTTACCACA TTTCGTGGAA AAATGGAGAA	6660
AGTTTTCAGA AGAGAGAATG AGAGAACCCT CGGGTTCTCT CATTTCTCTT TATTCTACTG	6720
TTTCTTCCAC AGTTTCAACG GCAGTATCCA CAACTACTTC TGTGTTTCT TCATTTCTTT	6780
CTTCTCTTAC TGGAGGATTA AGGTATTCTT CTTCTGTGAC AGCATGTGGT TCAAGGTTAC	6840

810						
GGTAACGGGC	CATACCAGTA	CCAGCTGGGA	TGATCTTACC	GATGATAACA	TTTTCTTTAA	6900
GTCCAAGGAG	ATGGTCTTTC	TTACCACGGA	TAGCTGCGTC	AGTAAGGACA	CGAGTTGTTT	6960
CCTGGAAGGA	AGCCGCTGAC	AAGAACTGT	TTGTTTCAAG	TGAGGCTTTG	GTAATTCCCA	7020
TAAGGACTGG	GCGACCTGTC	GCTGGAATC	CACCTGCGAT	AAGGACATCT	TTGTTGGCAT	7080
CTGTAAAGTC	ATTGATATCC	ATGAGGGTAC	CCATGAGAAG	ATCTGTATCA	CCTGGATCCA	7140
TGACACGGAC	TTTACGGATC	ATTTGACGAA	CCATTACCTC	GATGTGTTTG	TCACCGATTT	7200
CTACCCCTTG	GCTACGGTAA	ACTTTTTGTA	CTTCACCGAG	AAGGTACGTT	TCAACTGACA	7260
AGACATCAGC	AAC TGCAAGG	AGACGTTTGT	GTTGGATAGA	ACCTTCTGTC	AGAGCAGCAC	7320
CACGCGCTAC	TTGGCCCCCA	ACTTCGACAC	GCATACGAGC	TGTAAATGGA	ACGACATATT	7380
CACCTTCGCC	AGTTTCACCC	TTAACAAAGA	CTTCTTGGT	ACGAGTTGAT	GCATCTTCTT	7440
CGATAGCAGT	AAC TTGTCTT	TTAACCTCTG	TAATAACCGC	TTCCCTTTTA	GGATTGCGGG	7500
CTTCAAAGAT	TTCTTGGACA	CGAGGAAGAC	CCTGAGTGAT	ATCGGTATTT	GAGGCAACCC	7560
CACCTGTGTG	GAAGGTACGC	ATTGTAAGCT	GTGTACCAGG	TTCCCGGATA	GATTGGGCAG	7620
CGATTGTACC	AAC TGCTTCA	CCAAC TTCAA	CCGCATCACC	AGTCGCCAAG	TTGATACCGT	7680
AACAGTGACG	GCAGACACCG	TGACGAGTGT	TACATGTAAA	TACAGAACGG	ATAGTCACTT	7740
CTTCCACACC	AGCATTGACA	ATTCACGCG	CCTTGTCTTC	TGTAATCAAT	TCATTTGGAC	7800
CAATAATCAC	TGCACCAATT	TCTGGATGTT	TAACAGTTTT	CTTAGTGTA	CGACCGTTGA	7860
GACGCTCTTC	GAGAGACTCG	ATCATCTCTT	TTCCTTCTGC	GATAGAACGG	ATCAAGAGAC	7920
CACGGTCAGT	TCCACAGTCG	TCCTCACGGA	TGATAACGTC	TTGGGCAACG	TCGACCAAAC	7980
GACGAGTCAA	GTAACCTGAG	TCGGCTGTCT	TAAGGGCCGT	ATCGGTCATA	CCTTTACGAG	8040
CACCGTGAGT	TGAGAAGAAC	ATTTCCAATA	CCGACAAACC	TTCGCGGAAG	TTTGAAAGGA	8100
TTGGCAATTC	CATGATACGT	CCATTCGGAG	CAGCCATCAG	ACCACGCATA	CCGGCAAGCT	8160
GTGAGAAGTT	TGAGATGTTA	CCACGGGCTC	CAGAGTCCAT	CATCATAACG	ATTGGGTTC	8220
TAGGATCTTG	GTTAGCAATC	AAGCGTTTCT	CAAGTTTTTC	ACGGGCAGCA	CGCCATTGAG	8280
CTGTAACAGC	ATTGTAACGC	TCGTCGTCTG	TGATCATACC	ACGACGGAAT	TGTTTGGTGA	8340
TTTGTTCGAC	ACGTTTGTGT	GATTCTTCAA	TGATTTCAGC	CTTGTCTATCA	ACGACTGGGA	8400
TATCGGCAAT	ACCCACTGTC	AATCCTGCAA	GAGTTGAGTG	GTGGTAACCG	AGGTTCTTCA	8460
TGCGGTCAAG	TAGGGCAGAA	GTTTCTGTCT	TACGGAAACG	TTTGAAGATT	TCAGCGATGA	8520
TATTTCCAAG	GTTTTTCTTC	TTGAATGGAG	GGTTGAGCTC	AAGATTGCTG	ATAGCTTCCT	8580
TGATATCTCC	ACCAAGTGGC	AAGAAGTATT	TAGCTGGAAC	ACCTTCTGTC	AAGTTGGCAT	8640

811

TGTTTGGTTC TTGCAAGTAT GGTAGCCCCT CTGGCATGAT ATCGTTGAAG AGAATTTTAC	8700
CAACTGTTGT AAGCAAGACC TTATGTCTTT GCTCTTCTGT CCAAGGCTTG TTGAGGCTGT	8760
CTGTTGCGAT ACCAACACGT GAGTGGAGGT GAACATAACC ATTGCGGTAA GCCATAACCG	8820
CTTCGTCACG GTCTTTGAAG ACCATTCCCT CACCTTCGCG ACCAGCTTCT TCCATGGTCA	8880
AGTAGTAGTT ACCCAAACC ATGTCCTGAG ATGGAGTAAC TACCGGTTTC CCATCTTTTCG	8940
GGTTCAAGAT GTGCTCAGCA GCTAGCATGA GGATACGAGC TTCTGCTTGT GCTTCTTCTG	9000
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CCAAACGGTG AAGGGTCGGT GCGCGGTTC AAGCACTGG GTGTTCTTTA ATCACTTCTT	9180
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TTTGACGAT ATCACGGGCA ACGATTTCAC GCATGACAAA TGGTTTAAAG AGTTCAATCG	9300
CCATTTACAG CGGCACACCA CATTGGTACA TCTTAAGAGT TGGACCAACG GCGATAACTG	9360
AACGTCTGA GAAGTCAACA CGTTTACCGA GCAAGTTTG ACGGAAGCGT CCTTGTTTAC	9420
CTTTAAGCAT GTGGCTCAAT GATTTCATG GACGGCTACC TGGTCCTGTG ATTGGACGAC	9480
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GAGGGCTCAT ATCAAGGGTC AAGCCCATAC GGCTTGAAT CCCCTTGAAG TACCAGATGT	10080
GAGATACAGG AGCTTTCAAT TCGATATGTC CCATACGCTC ACGACGAACT TTCGTACGCG	10140
TTACTTCAAC CCCACAGCG TCACAAACAA TTCTCTGTG ACGAATGCGT TTGTACTTAC	10200
CACAAGCACA TTCCAGTCT TTTGTAGGAC CAAAGATCAC TTCATCAAAG AGTCCCTCAC	10260
GTCTGGTTT CAAGGTACGA TAATTGATTG TTTCAAGTTT TTTGACTTCT CCATAAGACC	10320
ATGAACGGAC TTTACTTGA GAAGCTAGGG TGATTTCAT ACTTTTAAAA CGATTTACAT	10380

812

CAACCACTAT TTCTCCCTT TCTATTCTAA GTGAAC TGCT TATTCTTGTT CAGCAGCTTC	10440
TTCTGTTGCT TCCGCTTTTG TTGCTTTCTC AGCTTCTTCA GCTTCAAAGG CTGCTTTAGC	10500
CTCTTGGGCT GCTTTTTCGC GGGCTTTTTC AAGGTCATCT ACGTGGATGA CATCTTCGTC	10560
CATTCTTCA TCCAAGTCGC GAAGTCCAC TTCTTGGTCA TCTTCGTCTA GGACACGCAT	10620
GTCAAGACCA AGAGATTGCA ATTCTTTGAC AAGAACTCGG AAGGATTCTG GAACACCTGG	10680
TTTTGGAATT GGTTCGCTT TTGTAATAGC TTCATAGGCT TTCAAACGTC CGTTGATATC	10740
GTCCGACTTG TAAGTCAAGA TTTCTTGAAG GACATTTGAC GCACCGTAGG CTTCAAGAGC	10800
CCAAACCTCC ATCTCACC GAAGTTGTCC ACCAACTGA GCCTTACCTC CGAGTGGTTG	10860
TTGGGTAACA GTTGAGTATG GTCCGACTGA ACGCGCGTGC AATTTATCAT CAACCATGTG	10920
GTGGAGTTTG ATCATGTACA TGAATCCGAC AGAAACACGG TTATCAAACG GTTCACCACT	10980
ACGTCCATCG TAAAGGATCG TTTTGGCATC GCTATCCATA CCTGCTTCTT TAACAGTTGA	11040
CCAAAGATCT TCAGAACTTG CTCCATCAAA GACTGGTGTA GCGATGTGAA TACCAAGAGT	11100
ACGAGCTGCC ATACCAAGGT GAAGCTCCAT AACCTGACCG ATATTCTATC GTGATGGTAC	11160
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TACAGGAACG ATACGAGAGA CAACCCCTTT GTTCCCGTGA CGTCCGGCCA TTTTATCTCC	11280
GACCTTAATC TTACGTTTTT GAGCGATGTA AACACGAACC AACATGTTAA CACCTGATTG	11340
CAACTCATCT CCATTTACAC GTGTAAAGAT CTTAACATCA CGAACGACAC CATCGGCACC	11400
GTGTGGTACA CGAAGAGAAG TATCACGCAC TTCACGAGAC TTGTCTCCAA AGATAGCGTG	11460
CAAGAGACGT TCTTCAGCTG AAAGATCTTT CTCACCCCTA GGTGTTACTT TACCTACAAG	11520
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GAGGGCATCT TCACCAACGT TTGGAATTC GCGAGTGATT TCTTCAGGCC CAAGCTTTGT	11640
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GAAATCGCCT TTTTCAACGA CATCACCAAC TTTTACGAGA GTGCGTTGGT TGTAAGCAGT	11880
ACCTGAGTTT GAACGACGGA ATTTTGGAT GTGGTAAACA TCCAATGAAC CATCTTCACG	11940
ACGAATTCTT ACCTTGTCAG CATCTGCGTA AGTAACTTTA CCATCATACT GAGCAATCAC	12000
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AGGATTAATC AATGGCACAG CCTGACGTTG CATATTGGCT CCCATGAGGG CACGGTTGGA	12120
GTCTCGTTT TCCAAGAAAG GAATACATGC TGTGCAACG GCAACTACCT GTTTTGGTGA	12180

AACGTCCATG TAGTCAACAA TATTAGCTGG ATACTCTTGG TTGACCCCTT GGTGACGTCC	12240
CATGACAATC TTCTCAGCAA AGGTTCATC TTCATTGAGA CGAGAGTTAG CCTGAGCTAC	12300
AGTATATTCA TCTTCTTCAT CAGCTGTCAA CCAAACAATT TCGTTCGTGA CAACACCTGT	12360
TTCACGGTCA ACCTTACGGT ATGGTGTGTTG AACAAAACCA TATTTGTTCA AGTGTCCATA	12420
AGATGACAAG TTATTGATCA AACCGATGTT AGGTCTTCA GGTGTCTCGA TTGGACACAT	12480
ACGACCATAG TGAGTGTAGT GCACGTCACG TACTTCATAT CCAGCACGGT CACGAGTCAA	12540
ACCACCAGGT CCTAAGGCTG ACAAACGGCG TTTGTGAGAC AACTCAGAAA GCGGGTTGTG	12600
TTGGTCCATG AACTGTGACA ACTGTGATGA ACCAAAGAAT TCTTTAACTG CAGCTGTTAC	12660
AGGACGGATA TTGATAATTT GTGTGGTGT CAAGACTTCA TTGTCTGAA CAGACATACG	12720
TTCACGGACA TTACGTTCCA TACGAGAAAG TCCCAAACGT ACTTGGTTGG CAAGCAATTC	12780
ACCAACCGCA CGGATACGAC GATTTCCAAG GTGGTCGATA TCATCTACAC GGCCAAGTCC	12840
TTCAGCCAAG TTGAGGAAGT AGCTCATCTC AGCAAGGATA TCTGCAGGAG TCACCGTACG	12900
AACCTTGTCA TCTGGGTTAG CATTACCAAT GATCGTTACG ACGCGATCTG GATCAGTTGG	12960
AGCAATAACC TTGAATTTT GAAGAACAAC AGGCTCAGTC ACAACGGCTG CATCGTTTGG	13020
GATGTAGACA ATCTTGTTCA AGTCGCCATC CAAATGGCTT TCAATGCTTT CAATCAGCT	13080
ACGAGTCATA ATCGTACCAG CTCTACCAA GATTTCTCCA GTTTCAGGGT CTACCAATGG	13140
CTCTGCAATG GPTTGGTTGA GCAAACGTGT TTAACATTG AGTTTTTTAT TGATTTTGTA	13200
ACGACCAACT GCTGCCAAGT CATAACGACG TGGGTCAAAG AAGCGAGCTA CAAGCAAGCT	13260
ACGTGAGCTT TCAGCCGCTT TAGGCTCACC TGGACGAAGG CGTTCGTAAA TTTCTTTCAA	13320
GGCTTCGTCT GTACGAGAGT CCATTGGATT CTTGTGGATA TCTTTTCAA CAGTGTGCG	13380
AACCAATTCG CTGTACCAA AGATATCAAA GATTTTCATCA TCACCTGAGA AACCAAGAGC	13440
ACGAACCAAG GTTGTAATG GAATCTTACG AGTACGGTCG ATACGAGTGT AGGTGATATC	13500
TTTGTAGTCG CTTTCAAGTT CCAACCAAGC TCCACGGTTA GGGATAACAG TTGAACCATA	13560
GCCCACCTTA CCATTTTGT CTACTTTGTC GTTAAAGTAA ACACCTGGTG AGCGGACCAA	13620
CTGAGAAACG ATAATACGTT CACCACCATT GATGATGAAA GTACCCATTT CTGTCATGAT	13680
TGGGAAATCA CCAAAGAAAA CTTCTGGGT CTTGATTTCG CTTGTTTCTT TATTGATCAA	13740
ACGGAAGGTT AAAAAATTG GTGCTGAGTA GCTAGCATCG TGGATACGAG CTTCTTCTAG	13800
CGTATATTTT GGTCCTTGA TTTCATATCC AACAAATTC AACTCCATTG TGTCTGTGAA	13860
GTGTGAAATT GGCAATACAT CTTCAAACAC TTCCTTAAGA CCGTGGTCTA GGAAAGCTTT	13920

814

GAATGAGTCA GTTTGAATTT CAATCAAATT TGGTAAGTCA AGAACTTCTT TGATTCTTGA	13980
AAAACCTACGA CGGGTACGAT GTTCCCGTA TTGAACGTCA TGCCTGCCA AGATGATTCT	14040
CCTTTGTAAA TAAGTTCCAA GCCTTGTCAA TCAGGCTTIT CTAATCGTCA TATGGTTGTA	14100
AACCCCTTAT CACCGTGTCC TCTTGACGAA TTTTCAGAAT CTTTAAGCCT CTGTTACAAA	14160
TGCTCAAAAT CTTGAAAAA AGCACAAAA GAGCAGCTAA ATCTGACTTT TTCAGAAGAT	14220
TTAACTGCTG TGAGCCTTGT CTGGACAATA TTTCAGACAA AACCTACGAC AAATGATTAC	14280
CCATATTATA CCCTATTTAG CTAGATTTTT CAAGGGGTTT CAGTAGGTTT TTGGTAAATT	14340
TTTTCCATA GAAAACCTGG CATCACATTC GAATCACGCT ATGGTACAAA AAACGTAAAA	14400
AACCTATTGAC TGAAAATCAT TTCAAGGTA TAATAATAAA CGTTAAGGCG GTATAGCCAA	14460
GTGGTAAGGC ACGGCTCTGC AAAAGCTTGA TCGTCGGTTC AAATCCGTCT ACCGCCTTCT	14520
ATAACTTGAT TTATCAGGTT TCAAATGAAC AGAAAGCCCA ATTTGAAGGG CTTTTTTTAT	14580
TTCCCTCGA ATAAATACGT ATAACTTTAA AAACTTTGG AGCGAGTTTG TGGCAGAGTT	14640
CTTCCATGG CATAATCCC TTTTGAAATC AG	14672

(2) INFORMATION FOR SEQ ID NO: 112:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7902 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

AGGAGACTAT TCAAGCCCAA ATTgAGTAGC CCAGCAAAGA CTGTATAGAC TGTGATACGT	60
TTTTCATAGC CATTGGTAAA GAGAATTTGG GAACCAAGAA TGGTATCTAA GGCCAGGATA	120
ATCGTACGAA AAGCGAAGAG AGAGGTCAAG ATGCCGCCCTC CGATATATTT TTTACTACCG	180
TAAAGTAGGA TGGCATTGG TCCTAAAACC ATGAGTCCAA AACTCAGTGG AATGATAAAG	240
AAGTTAAAGA TTCGACTACC TCTATTAAAC AGAGAAACAT AGGCTTCTTT GTCTCCTTTC	300
CCCAGATAGT AACTGAGACG AGGCACACTC ACTCCAATTG CACCTGTTAC AACCCAGCT	360
ATAACGGTCA CAATTCGCTG AGCTATGGTA TAGTAACTAA CGTTGACATC AATCCCTGTT	420
TTAACGAGGA AGAGGCGATC TAAAAAGTG AAGAGCATAT TGGCATTGGC AAAGACTAAC	480
ATGGCTGTCA GAGGGAGAAA GAGTGGTTTA AAATCACTTA GGTGAATTTT AACAAAGTTG	540
ATGTCTCTTT TAATCCAAAA ATAACTAATC AGGTAGTTAA TCAGCGTCGA TAAACTCATC	600
ACAAGTGTAT AGACAACAAT ATCGTGTTC TTTTAAACAA ATAAGAAAAAT AGAGACCAGC	660

815

ATCAGGATAC GGATGAAGGC AGTTTTGTAA AAGAGAAAAC TGTAATTTTC CAGAGCTTCA	720
TTGACCCATT CGATTGAAAA AATCTGGGCA ATGAGTTGAA TCCCCATAAC AAGGTAGACC	780
TTTTTGACGA TTGGATTATC AGTAAAGAAG AGAGGATAGG CTAGGATATA GACAGCAGTG	840
GTCAAAATCG TACAAGCGAT GCACAAATAA AAAAGACTAG AAAAGGTTCT GTTAAGATCT	900
TTTTTGTAT CCTTGACATT ACTGATAGCC CTTAAACCGT AGTTATAGAC ACCATAAGTT	960
GCAAAGGGCA AGAAAAATGA CAAAATAGTG TCGACTGAGT TGAAGTAACC ATAGTCAGTT	1020
CGGTCCAAGA CACGCGCGAC ATAGGTTCCA GTTAGGATGG GAAAAATAAT ATTCAAGACA	1080
CGAATTCCCA TGTAAGATAG AGCATTTAAT TTTATACTTT TCATTCAATT TACCTCGTTT	1140
TTCATTATAT CATAAAGTTA GCTAATAAGA AATGAAGGGC AGTAAGTCAA GTAATCACTT	1200
TGAAGTTTCA AATCTTAAGT TTTAAGTTTT CTTAAGGAA AGTATATTAT TCTGAAGGAC	1260
TCTAAAATTT CGCAGCCATT TATTAGTAAT TGCTACAGAA TTCCTAGTCA TTAGTAGAAA	1320
TGGACTAGTT TCTTTGAATA ATAGAACTGC ATAATTCTCC TATTCTAGAA GGGGAGGACC	1380
AGTATTTCTT TTATGATAGG ACTAGATTGT GGTATAATAG AGAGAATAAG TTTTTTAGT	1440
AAGACAAAGG AGAAAAATAGA TGATTTATGC AGGAATCTT GCCGGTGGAA CTGGCACACG	1500
CATGGGGATC AGTAACTTGC CAAAACAATT TTTAGAGCTA GGTGATCGAC CTATTTTGAT	1560
TCATACAATT GAAAAATTTG TCTTGAGGCC AAGTATTGAA AAAATTGTAG TTGGTGTTC	1620
TGGAGACTGG GTTCTCATG CAGAAGATCT TGTAAGATAA TATCTTCTC TTTATAAGGA	1680
ACGTATCATC ATTACAAAGG GTGGTGCTGA CCGCAATACA AGTATTAAGA ACATCATTGA	1740
AGCCATTGAT GCTTATCGTC CGCTTACTCC AGAGGATATC GTTGTACCC ACGATTCTGT	1800
TCGTCCATTT ATTACACTTC GCATGATTCA GGACAATATC CAACTTGCCC AAAATCATGA	1860
CGCAGTGGAC ACAGTGGTAG AAGCGGTTGA TACTATCGTT GAAAGTACCA ATGGTCAATT	1920
TATTACAGAT ATTCCAAATC GTGCTCACCT TTATCAAGGA CAAACACCTC AACATTCCG	1980
TTGCAAGGAC TTCATGGACC TTTATGGATC TCTTCTGAT GAAGAGAAGG AAATCTTGAC	2040
AGATGCATGT AAAATCTTTG TGATCAAAGG AAAAGATGTG GCTTTGGCCA AAGGTGAATA	2100
CTCAAACTCG AAGATTACAA CCGTAACAGA TTTGAAGATT GCAAAAAGTA TGATTGAGAA	2160
AGACTAGTAA AATGATTAAT CAAATTTATC AACTAACTAA GCCTAAGTTT ATCAATGTCA	2220
AATATCAGGA AGAGGCTATT GACCAAGAGA ATCATATCCT TATCCGTCCC AACTACATGG	2280
CTGTCTGTCA TGCGGATCAG CGTTACTATC AGGGAAAACG TGATCCCAAG ATTTTGAATA	2340
AAAAGCTTCC AATGGCAATG ATTCACGAGT CATGTGGAAC CGTCATTTCT GACCCGACCG	2400

816

GAACCTACGA GGTGGTCAA AAAGTTGTCA TGATTCCCAA TCAGTCTCCT ATGCAGAGTG	2460
ATGAAGAATT CTATGAAAAC TACATGACAG GGACCCATTT CTTGTCTAGT GGATTGATG	2520
GCTTTATGAG AGAGTTTGTT TCTCTCCCTA AAGATCGTGT GGTGGCTTAT GATGCTATTG	2580
AAGATACGGT TGCAGCCATT ACAGAGTTTG TCAGTGTGGG CATGCACGCT ATGAATCGTC	2640
TATTGACTCT TGCTCATAGC AAGCGGGAGC GGATCGCCGT TATTGGAGAT GGAAGTTTAG	2700
CTTTTGTTGGT TGCCAATATT ATCAACTATA CTTTGCCAGA AGCAGAGATT GTGGTTATTG	2760
GTCGTCATTG GAAAAAGTTG GAACTCTTCT CATTTGCCAA AGAATGCTAT ATTACGGATA	2820
ATATTCTGA AGATTTGGCC TTTGACCATG CTTTGAATG TTGTGGTGGT GATGGTACTG	2880
GACCAGCTAT TAATGACTTG ATTCGCTACA TTCGTCCTCA GGAACGATT CTCATGATGG	2940
GAGTTAGCGA ATATAAGTC AATCTCAATA CTCGCGATGC CTTAGAAAAG GGCTTGATTT	3000
TGTTGGGTC ATCTCGTTCT GGTGCGATTG ATTTTGAAAA TGCTATCCAA ATGATGGAAG	3060
TCAAGAAATT TGCCAATCGT CTTAAAAATA TCCTTTATCT AGAAGAACCT GTAAGAGAAA	3120
TTAAAGATAT TCATCGTGTG TTTGCAACCG ATTAAACAC AGCCTTTAAA ACAGTGTTTA	3180
AGTGGGAAGT ATAAGTACTG GAGGTTAATT GTGGAGAAAA TCATTAAAGA AAAAAATTCT	3240
TCCTTACTTA GTCAAGAAGA GGAAGTCCTC AGTGTTGAAC AACTGGGTGG AATGACCAAT	3300
CAAAACTATT TGCCCAAAAC AACAAATAAG CAATACATTG TTTAAATCTT TGGTAAAGGG	3360
ACAGAAAAGC TTATCAATCG ACAAGATGAA AAGTACAATC TTGAAGTACT AAAGGATTTA	3420
GGCTTAGATG TAAAAATTA TCTTTTGAT ATTGAAGCTG GTATCAAAGT AAATGAGTAT	3480
ATCGAATCTG CGATTACGCT TGATTCAACG TCAATCAAGA CCAAGTTCGA CAAAATTACT	3540
CCAATATTAC AAATATTCA TACGTCTGCT AAGGAATTAA GAGGAGAATT TGCTCCTTTT	3600
GAAGAAATCA AAAAATACGA ATCCTTGATT GAAGAACAAA TTCCTTATGC CAACTATGAA	3660
TCTGTTAGAA ATGCAGTCTT CTCCTTAGAG AAAAGACTGG CTGACTTAGG TGTGACAGA	3720
AAATCTGTG ATATCGATTT GGTGCCTGAA AACTTTATCG AATCACCTCA AGGACGACTT	3780
TATTTGATTG ACTGGAATA TTCATCAATG AATGATCCAA TGTGGGATTT GGCTGCCCTC	3840
TTTTTAGAGT CTGAATTCAC TTCCCAAGAG GAAGAACTT TCTTATCTCA CTATGAGAGT	3900
GACCAAAACAC CGGTTTCTCA TGAAAAGATT GCTATTTATA AAATTTTACA AGATACTATT	3960
TGGAGTCTAT GGAAGTCTA TAAGGAAGAG CAAGGTGAAG ATTTTGGTGA CTATGGTGTG	4020
AATCGTTACC AAAGAGCTAT TAAAGGTTG GCTTCTTATG GAGGTTTACA TGAAAAGTAA	4080
AAACGGAGTT CCTTTTGGCC TTCTCTCAGG TATTTTCTGG GGCTTGGGTC TAACGGTTAG	4140
TGCTTATATC TTTTCGATTT TTACAGATTT GTCACCTTT GTGGTGGCTG CAACTCATGA	4200

817

TTTTTTGAGC ATCTTTATCT TACTAGCTTT TCTCTTGGTA AAAGAAGGGA AAGTTCGCCT	4260
CTCAATTTTC TTAATATTC GCAATGTCAG TGTATCATC GGAGCCTTGC TAGCAGGCCC	4320
TATCGGTATG CAGGCCAATC TTTATGCAGT TAAGTATATC GGAAGTTCTT TAGCTTCATC	4380
TGTATCGGCT ATTTACCCTG CGATTTCAGT TCTATTGGCT TTCTTCTTTT TGAAGCACAA	4440
GATTTCGAAA AATACTGTAT TTGGGATTGT CTTGATTATT GGAGGGATTA TTGCTCAGAC	4500
CTATAAGGTT GAACAGGTTA ATTCTTTCTA CATTGGGATT CTTTGTGCTT TGGTTTGTGC	4560
TATTGCATGG GGAAGTGAGA GTGTTCTTAG CTCTTTTGCC ATGGAAAGTG AATTGAGTGA	4620
AATCGAAGCC CTCTTAATCC GTCAAGTAAC TTCGTTCTTG TCCTATCTTG TGATTGTGCT	4680
CTTCTCTCAT CAGTCATTTA CTGCAGTAGC CAATGGACAA TTGCTAGGTC TCATGATTGT	4740
TTTTGCAGCC TTTGATATGA TTTCTACTT GGCTTATTAT ATCGCTATCA ATCGCTTGCA	4800
ACCAGCCAAG GCTACAGGCT TGAACGTGAG CTATGTAGTA TGGACGGTCT TGTTCGAGT	4860
TGTTTTCTTG GGTGCACCGC TAGATATGCT GACCATTATG ACGTCACTTG TCGTCATTGC	4920
TGGAGTTTAT ATTATTATTA AAGAATAAAG GAGATTCGTG TGAAGCCAT TATCTTAGCA	4980
GCGGGATTGG GAACTCGCTT GCGTCCTATG ACTGAAAATA CCCCTAAAGC CTTGGTTCAG	5040
GTTAATCAAA AACCTTTGAT TGAGTACCAA ATTGAGTTTC TCAAAGAAAA AGGAATCAAT	5100
GACATCATCA TCATTGTTGG TTATCTTAAA GAACAATTCG ATTACTTGAA AGAGAAATAC	5160
GGTGTTCGTC TCGTTTTCAA TGATAAATAC GCTGACTACA ATAACTTTTA CTCTCTCTAT	5220
CTTGTAAGG AAGAATTGGC CAACAGCTAT GTTATTGATG CTGACAATTA TCTCTTTAAA	5280
AATATGTTCC GCAATGATTT GACACGTCG ACTTATTTA GTGTTTATCG TGAAGATTGT	5340
ACCAACGAAT GGTTCCTGGT TTATGGAGAT GACTACAAGG TTCAAGACAT TATTGTTGAT	5400
AGCAAGGCAG GTGCATCCT TAGTGGTGA TCCTTCTGGG ATGCTCCAAC TGCAGAAAAG	5460
ATTGTCAGCT TTATCGACAA GGCTTATGTA AGTGGTGAAT TTGTTGATCT CTATTGGGAC	5520
AATATGGTTA AGGATAATAT CAAAGAGCTA GATGTCTATG TTGAAGAATT AGAAGGCAAT	5580
AGCATTTATG AGATCGATAG TGTCCAAGAC TATCGTAAAT TAGAAGAAAT TCTTAAAAAC	5640
GAAAAATAAA GATTCCAACA TCTGACAAAA TAGTCGGATG TTTTTTGATT TTTTACGAAC	5700
TTTTACGAAT AGATAGATGA GTAGAAAAAG AAATGGAGTT ATTTATGAAA ATCACAAACT	5760
ATGAAATCTA TAAGTTAAAA AAATCAGGTT TGACCAATCA ACAGATTTTG AAAGTGCTAG	5820
AATACGGTGA AAATGTTGAT CAGGAGCTTT TGTGGGTGA TATTGCAGAT ATCTCAGGTT	5880
GCCGTAATCC AGCCGTTTTT ATGGAACGTT ATTTTCAGAT AGACGATGCG CATTTGTGCA	5940

818

AAGAGTTTCA AAAATTTCCTA TCTTTCTCTA TTTTAGATGA CTGTTATCCT TGGGATTTGA	6000
GTGAAATATA TGATGCGCCT GTACTTTTAT TTTACAAGGG AAATCTTGAC CTCCTGAAAT	6060
TCCCGAAGGT AGCGGTCGTG GGCAGTCGTG CTTGTAGCAA ACAGGGAGCT AAGTCAGTTG	6120
AAAAAGTCAT TCAAGGCTTG GAAAATGAAC TGGTTATTGT CAGTGGTCTG GCCAAGGGCA	6180
TTGACACAGC AGCTCATATG GCAGCTCTTC AGAATGGCGG AAAAACCATT GCAGTGATTG	6240
GAACAGGACT GGATGTGTTT TATCCTAAAG CCAATAAAGC CTTGCAAGAC TACATCGGCA	6300
ATGACCATCT GGTCTAAGT GAATATGGAC CTGGTGAACA ACCTCTGAAA TTTCATTTTC	6360
CTGCCCCGTA TCGCATCATT GCTGGACTTT GTCGTGGTGT GATTGTAGCA GAGGCTAAGA	6420
TGCGTTCAGG TAGTCTCATT ACGTGTGAGC GAGCAATGGA AGAAGGACGC GATGTCTTTG	6480
CTATTCCTGG TAGCATTTTA GATGGACTAT CAGACGGTTG CCATCATTTG ATTCAAGAAG	6540
GAGCAAAATT GGTCAACAGT GGGCAAGATG TTCTTGCGGA ATTTGAATTT TAAAAATGAC	6600
CTAAGCTAGA ATTCTAAGAA AAAATCAATT TTAAGAGAAA ATGAACCCAA CATTTCCATA	6660
ATAAACGCA TATTAGCAAG TTTTAAACAC TTGATAATAT GCGTTTTTTC TAAGTGGATT	6720
AGTAGAGTAG AGGATTTTTT TCATATAATA CTCTTCGAAA ATCTCTTCAA ACTACGTCAG	6780
CTTCCATCTG CAACCTCAA ACAGTATTTT GAGCGACTTC GTCAGTCTTA TCTACAACCT	6840
CAAAGCAGTG CTTTGAGCAA CCTGTGGCTA GCTTCTAGT TTGCGCTTG ATTTTCATTG	6900
AGTATAAGGG AAAGTATAGT GAATTGAAAT AAGATGTGAA CAACTCTATC AGGAAAGTCA	6960
AATTAATTTA TAGAAATATT TTAGCAGCCA AGGTGTACTG TTATAGATTC AATTACACTA	7020
TAATTTAGTG TAATTGAGAA AGGAGAAATG ATTGTGATTG ATGTTGGCTA GGTATGTTTC	7080
AATGATTCCT ACCGTCCTCA ATCTTGTCAG TAAGGAAAAA TAAATTCCTC AAAAGTAGAG	7140
ATTACAAGGC TTGTTTAAGA AAGAATTCAA AGACCTTGAC AAATAAAAT AAAATGGTTA	7200
TTATAAAAAA TGGTCTGAAA TAGATGATGA TACTTTTCGA AAATCTCTTC AAATACGTCA	7260
GCTCAGCTTT GCCTTGCTGT GTTTTGAGCA AGCTACGGTT AGCTTCCGAG TTTGATTTTC	7320
ATTTACTAGA AATGAACTG ATGAGAGATA TCAGTAGACA TTTGAGTCAG GATATTATGG	7380
AAAATGATAA AAAGAGCTCG TGAGATTGGC ATATCAGACT ACTAAAGTAT TGAGTTTGTT	7440
AGGATTTTAG CGACTAGTTA GCTGGGAAAG GAAGATATTT GTGACAAATA ATAACTGTA	7500
TTCGTTGATA GAATTTAGAA ATAAAAATA TGAAGAATTA GAACTTTCCA GAAGTGATT	7560
AGCGATTTTA CTATGTGCCA TGCTTATCGC CTCTATCGGA TTAAATATGG ATTCGACTCC	7620
CGTGATTATT GGAGCCATGT TAATCTCTCC TTTGATGACA CCTATTCTGG GAGTGGGGCT	7680
CTCTCTAGCT ATATTGATT TTAAATTGTT AAGAAAATCT TTAAAAATAT TAGCTATTCA	7740

819

AATTCTTGCC AGTCTAATAG CTTCAACACT TTATTTTAT CTTTCTCCCA TTTCGTATGC	7800
TAGTTCGGAG ATTGTTGCTA GAACCTCTCC GACTATTTGG GATGTTCTCA TTGCTTTGT	7860
AGGAGGGATA GCAGGTATCA TTGGTGCTAG GAAAAAGAG AC	7902

(2) INFORMATION FOR SEQ ID NO: 113:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18627 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

GAAGTTGAAA TGGCCAGCTG ATGAGCAATA TCGGTCATAG AAATCTTCTC AATCAACTTT	60
TGCGCAATTT TTTGGTTGAT AATACGAGGA ATTTGGTGAT TTTTCTTGAC GATAGAAGTT	120
TCACGACCA TCATTTTGA ACAGTGATAG CACTTGAAAC GACGCTTCT AAGTAGAATT	180
CTAGTAGGCA TACCAGTTGT CTCAAGGTAA GGAATCTTAG ACGGTTTTTG AAAGTCATAT	240
TTCTTCAATT GGTTCGCA CTCAGGGCAA GATGGGCGT CGTAGTCCAG TTGGCGATG	300
ATTTCTTGT GTGTATCTTT ATTGATGATG TCTAAAATCT GGATATTAGG GTCTTTAATG	360
TCTAGTAATT TTGTGATAA ATGTAATTGT TCCATATGAA TCTTTCTAAT GAGTTGTTG	420
GTCGCTTTC ATATAGGTC ATATGGGACT TTTTCTAC AATAAATAG GCTCCATAAT	480
ATCTATAAGG GATTTACCA CTACAAATAT TATAGAGCCA AAAATCCTTT GTTTACTAAA	540
CAAGGGATTT TTCTTTTGT TCTGCTCCTT TTTTGATATA ATAGTTCTAT GTTAAATCA	600
GAAAACAAT CACGTTATCA AATGTTAAAT GAAGAATTGT CCTTCCTATT GGAAGGCGAA	660
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ACCGTATTTG CAGGCTTTTA TTGTTGAT GGAAGGAAT TGGTTTAGG CCCCTTCCAA	780
GGAGGTGTTT CCTGCATCCG TATTGCACTA GGCAAGGGTG TTTGTGGTGA GGCAGCTCAC	840
TTTCAGGAAA CTGTTATTGT TGGAGATGTG ACGACCTATC TCAACTATAT TTCTTGTGAT	900
AGCTAGCTA AAAGTGAAAT TGTGGTGCCG ATGATGAAGA ATGGTCAGTT ACTTGGAGTT	960
CTGGATCTGG ATTCTTCAGA GATTGAGGAT TACGATGCTA TGGATCGAGA TTATTTGGAA	1020
CAATTTGTCG CTATTTTGCT TGAAAAGACA GCATGGGACT TTACGATGTT TGAGGAAAAA	1080
TCTTAATGTA TCAAGCACTT TATCGAAAAT ATAGAAGTCA AAATCTCTCC CAGTTAGTTG	1140
GTCAGAAGT TGTGGCTAAG ACTCTTAAAC AAGCGGTGGA GCAAGAGAAA ATAAGTCACG	1200

820

CTTATCTTTT TTCTGGTCCT CGTGGAACGG GAAAAACCAG TGTGCTAAA ATCTTTGCCA	1260
AGGCTATGAA CTGTCCCAAT CAAGTGGGTG GCGAACCTTG CAATAACTGC TATATTTGTC	1320
AAGCAGTGAC GGACGGTAGT TTAGAAGATG TCATTGAAAT GGATGCAGCT TCTAATAATG	1380
GGGTAGATGA AATTCGCGAA ATTCGTGATA AATCTACCTA TGCGCCTAGC CTTGCTCGTT	1440
ATAAGGTTTA TATCATAGAT GAGGTCACA TGCTGTCTAC AGGGGCTTTT AATGCCCTCC	1500
TAAAGACGCT GGAAGAACCA ACACAGAATG TAGTCTTTAT TTTGGCCACT ACTGAATTGC	1560
ACAAGATTCG TGCTACTATT CTATCCCGTG TGCAACGTTT TGAGTTTAAA TCAATTAAGA	1620
CACAGGATAT TAAGGAACAT ATTCACTATA TCTTAGAAAA AGAAAATATC AGTTCTGAAC	1680
CAGAGGCTGT GGAATCATT GCCAGACGGG CGGAAGGTGG AATGCGGGAC GCCTTGTCTA	1740
TTTGGATCA AGCCCTGAGT TTGACACAGG GAAATGAGCT GACGACTGCT ATCTCTGAAG	1800
AAATTACTGG CACCATTAGC CTATCAGCCT TGGATGATTA TGTGGCGGCC TTGTCTCAAC	1860
AGGATGTTCC CAAAGCTTTG TCTTGCTTGA ATCTTCTTTT TGACAATGGT AAGAGCATGA	1920
CTCGTTTGTG GACCGATCTT TTGCACTATT TAAGAGACTT GTTAATTGTT CAAACAGGGG	1980
GAGCAAATAC TCATCATAGT TCAGTCTTTG TAGAAAAATT GGCACCTCCT CAAAAAATC	2040
TGTTTGAAAT GATTCGCTTA GCAACAGTGA GTTTAGCAGA TATTAAGTCT AGTTTGCAAC	2100
CCAAGATTTA TGCTGAAATG ATGACCGTCC GTTTGGCGGA AATCAAGTCC GAACCAGCTC	2160
TATCAGGAGC GGTGAAAAA GAAATTGCTA CGCTGAGACA GGAAGTTGCC CGTCTCAAAC	2220
AAGAGCTTTC TAATGTAGGT GCGGTCCTA AACAAAGTGC ACCAGCTCCT AGTCGACCAG	2280
CTACGGGCAA AACAGTCTAT CGTGTCGATC GCAATAAAGT GCAATCTATC TTACAAGAGG	2340
CCGTCGAAAA TCCTGATTTA GCACGTCAAA ATTTAATTCTG TTTGCAGAAT GCCTGGGGAG	2400
AGGTAATTGA AAGTCTAGGT GGGCCGACA AGGCTCTGCT AGTTGGTTCT CAACCGGTTG	2460
CTGCCAATGA ACACCATGCT ATTCCTGCTT TTGAGTCTAA CTTCAATGCT GGTCAAACCTA	2520
TGAAACGAGA CAATCTCAAT ACCATGTTTG GTAATATCCT CAGTCAGGCG GCAGGTTTTT	2580
CACCTGAGAT TTTAGCTATT TCCATGGAGG AATGGAAGA AGTTCGCGCA GCCTTTTCAG	2640
CCAAAGCCAA ATCTTCTCAA ACTGAAAAAG AAGTAGAAGA AAGCCTGATT CCAGAAGGAT	2700
TTGAATTTTT GGCTGATAAA GTGAAGGTAG AGGAAGACTA AAGAAAGATT TCATGATACA	2760
ATAAGTTTAT GAATAAACAA CAATTTATTA TTATGGCGCT GTTTACAGCT GCTGAGACCT	2820
ATTTTTTCAA TGAAGCCTGG ATGACTGGCC GCTATATTAT GGCAGCCTTT TGGGCAATTT	2880
TACTCTTTAG AAATTTCCGA GTCAGTTATG TGATGGGCAA AATCGTTGAT GTCATCGATC	2940
AGCATTTTAA TAGGAAAGAC TAGCCCTCAG CTTCCAGACA AAATCAAAGC CTTTTAGGCT	3000

TTTTTTTGTT ATACTAGAAA AGTATATTTA TAGAATTTTT GCTCTATTTC TGGGGAAATC	3060
AGACGTTTTT CTAGTAAGTA CTGTAAAAGT TTTGAAAAAG AAAGGAACTA TCATGTCAGT	3120
ATTAGAGATC AAAGATCTTC ACGTTGAGAT TGAAGGAAAA GAAATTTTAA AAGGGGTTAA	3180
CCTGACCCTG AAAACAGGAG AAATGCCCCG TATCATGGGA CCAAATGGTA CAGGTAAATC	3240
GACTCTTTCT GCCGCTATCA TGGGAAATCC AAACATATGAA GTAACATAAG GTGAAGTTTT	3300
GTGTGATGGC GTAAACATCC TTGAGTTGGA AGTGGATGAG CGTGC GCGTA TGGGACTTTT	3360
CCTTGCTATG CAATACCCAT CAGAAATCCC TGGAAATTACC AATGCTGAGT TTCTTCGTGC	3420
CGCTATGAAT GCGGGTAAAG AAGATGATGA GAAGATTTCA GTTCGTGAGT TTATTACTAA	3480
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TGTGTCTAAA GGTGTCAATG CCATGCGTGG TGAAGGTTTT GGTGCTATGA TCATCACTCA	3720
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TGTTGTCTTT TCTGGTGGTC CAGAATTGGC TGCGCGTTTG GAACGTGAAG GATACGCAAA	3840
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822

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823

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824

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825

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826

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828

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829

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ATCGCAAACG AAAGCAGAAA ATTTCTTGGA AATTCCTTTA GGAAGGCTG TTAATGGAAC	17280
CGCAAGAGCT TTGACCTTT CTAAAATGCC CCACTTGCTA GTTGCAGGTT CAACGGGTTT	17340
AGGGAAGTCA GTAGCAGTTA ACGGCATTAT TGCTAGCATT CTCATGAAGG CGAGACCAGA	17400
TCAAGTTAAA TTTATGATGG TCGATCCCAA GATGGTTGAG TTATCTGTTT ACAATGATAT	17460
TCCCCACCTC TTGATTCCAG TCGTGACCAA TCCACGCAAA GCCAGCAAGG CTCTGCAAAA	17520
GGTTGTGGAT GAAATGGAAG ACCGTTATGA ACTCTTTGCC AAGGTGGGAG TTCGGAATAT	17580
TGCAGGTTTT AATGCCAAGG TAGAAGAGTT CAATTCACAG TCTGAGTACA AGCAAATTC	17640
GCTACCATTG ATTTGTCGTA TTGTGGATGA GTTGGCTGAC CTCATGATGG TGGCCAGCAA	17700
GGAAGTGGAA GATGCTATCA TCCGTCTTGG GCAGAAGGCG CGTGCTGCAG GTATCCACAT	17760
GATTCCTGCA ACTCAGCGTC CATCTGTTGA TGTCATCTCT GGTTTGATTA AGCCAATGT	17820
TCCATCTCGT GTAGCATTG CGGTTTCATC AGGAACAGAC TCCCGTACGA TTTTGGATGA	17880
AAATGGAGCA GAAAACTTC TTGGTCGAGG AGACATGCTC TTAAACCGA TTGATGAAAA	17940
TCATCCAGTT CGTCTCCAAG GCTCCTTTAT CTCGGATGAC GATGTTGAGC GCATTGTGAA	18000
CTTCATCAAG ACTCAGGCAG ATGCAGACTA CGATGAGAGT TTGATCCAG GTGAGGTTTC	18060
TGAAATGAA GGAGAATTTT CGGATGGAGA TGCTGGTGGT GATCCGCTTT TTGAAGAAGC	18120
TAAGTCTTTG GTTATCGAAA CACAGAAAGC CAGTGCGTCT ATGATTCAGC GTCGTTTATC	18180
AGTTGGATTT AACCGTGCGA CCCGTCTCAT GGAAGAAGT GAGATAGCAG GTGTCATCGG	18240
TCCAGCTGAA GGTACCAAAC CTCGAAAAGT GTTACAACAA TAAAAAATA GCTTCTTTCC	18300
AAGTTTGGAG GGAAGCTATT TTAGTGGCTA TTGATTGCTT TTATTTTCTG AAGTTGGCGC	18360
ATTGGACTGT TTTTCGTTTT CAGTAGCAGG TTTACTTGAA GCAGGAGTAG AAGAGTCCTG	18420
AGTTGCTGTT TTCTGATCTT CTTTTTCTC TTCCTTGACG CTAGATTTTG GTGTTTCCTC	18480
TTGCTGTGTT TTTCTTGAC TAGTGTTAGT CTCCTTAGTT GGAAGGTTGTT TTTCTTAGG	18540
GGATTCCTTT TGGATTTCTT TGACAATGGT TGTCGCTGCG CTTGTGCTAG GTTCTTTTTT	18600
AATATTTTGG TTATTATCCA AGGCGTT	18627

(2) INFORMATION FOR SEQ ID NO: 114:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2560 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

830

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

TAAAATACGT TACCTTGCTT CTGCACGTTC AGCAGGTAAG TCATTGAAAT TTAAAGATCA	60
AGATATTACA ATTGAAGAAA CACTGAAAC AGCTTTTGAA GGAGTTGATA TTGCTCTCTT	120
TTCAGCAGGT AGTTCTACAT CAGCTAAGTA TGCACCATAC GCAGTAAAAG CTGGCGTGGT	180
AGTAGTAGAT AATACATCTT ATTTCCGTCA AAATCCAGAT GTTCCTTTGG TTGTTCCAGA	240
GGTCAATGCT CATGCACTTG ATGCTCACA CGGAATCATT GCCTGCCCTA ATTGTTCAAC	300
AATTCAAATG ATGGTGGCTC TTGAGCCGGT TCGCCAAAAA TGGGGCTTGG ACCGTATCAT	360
TGTTTCAACT TATCAAGCCG TTTCAGGTGC TGGTATGGGA GCAATTCTTG AGACACAACG	420
TGAACCTCGT GAAGTCTTGA ATGATGGTGT GAAACCACGT GATTTGCATG CGGAAATCTT	480
GCCTTCAGGT GGTGACAAGA AACATTATCC TATCGCCTTT AACGCTCTTC CACAAATTGA	540
TGTTTCACT GATAATGATT ACACGTACGA AGAGATGAAG ATGACCAAGG AACTAAGAA	600
AATTATGAA GATGATAGCA TTGCAGTATC TGCAACATGT GTGCGTATTC CAGTCTTGTC	660
AGCTCACTCT GAGTCTGTTT ATATCGAAAC AAAAGAAGTG GCTCCAATCG AAGAAGTAAA	720
AGCAGCTATC GCAGCCTTCC CAGGTGCTGT TCTTGAAGAT GATGTAGCTC ATCAAATCTA	780
TCCTCAAGCT ATCAATGCAG TTGGTTCGCG TGATACCTTT GTTGGTCGTA TCCGTAAAGA	840
CTTGATGCA GAAAAAGGAA TTCACATGTG GGTGTTTCA GATAACCTTC TCAAAGGTGC	900
TGCTTGAAC TCAGTTCAGA TTGCTGAAAC TCTTCATGAA CGTGGATTGG TTCGTCCAAC	960
AGCCGAATTG AAATTTGAAT TAAAATAGTC ATATCGTTTA GGAGTTCAGA TGAACCTCTT	1020
CTTTGAAATA GAGAGGTGTT TTCGTGTCTT ATCAAGATTT AAAAAATGT AAAATCATTA	1080
CAGCCTTTAT TACCCCTTC CATGAGGATG GTTCCATTAA CTTTGATGCT ATTCCAGCCT	1140
TGATTGAGCA TTTATTGGCC CATCATACGG ATGGAATTCT TCTCGCAGGA ACGACTGCTG	1200
AGAGTCCAAC TTTGACCCAC GATGAGGAGT TGGAGTTGTT TGC GGCTGTA CAAAAGGTTG	1260
TCAATGGACG CGTTCCTTTG ATTGCGGGTG TAGGTACTAA TGATACGCGT GACTCTATTG	1320
AGTTTGTCAA AGAAGTAGCG GAATTTGGTG GTTTCGCAGC TGGGCTTGCT ATTGTTCCCTT	1380
ACTACAACAA ACCTTCTCAA GAAGGGATGT ATCAGCACTT TAAGACTATT GCAGATGCTT	1440
CTGACCTACC AATTATTATC TATAACATTC CAGGGCGTGT AGTTGTCGAA TTGACTCCAG	1500
AAACCATGCT TCGCTTGGCT GACCATCCAA ATATTATCGG TGTCAAAGAA TGTAAGTAGCT	1560
TGGCTAATAT GGCTTACTTG ATTGAGCACA AGCCTGAAGA GTTCTTGATT TATACAGGTG	1620
AGGATGGAGA TGCTTTCCAT GCCATGAACC TTGGGGCGGA TGGGGTTATT TCTGTTGCCT	1680

831

CTCATACAAA TGGGGATGAA ATGCACGAGA TGTTTACTGC GATTGCAGAA AGCGATATGA	1740
AGAAAGCCGC AGCAATTCAG CGTAAATTCA TTCCTAAGGT TAATGCTCTC TTCTCTTATC	1800
CAAGTCCTGC TCCAGTTAAG GCAATTCTTA ACTATATGGG ATTTGAAGCT GGACCCACTC	1860
GTCTACCTCT TGTTCAGCA CCAGAAGAAG ATGCCAAACG CATTATCAAG GTTGTGCTAG	1920
ATGGCGACTA CGAAGCAACT AAGGCAACTG TAACAGGGGT CTTAAGACCA GATTACTAAT	1980
AAAGACAATA AAATCCGGCT CTTTGTCAAC TGTAGTGGGT TGAAGTCAGC TAAGCTCGAG	2040
AAAGGACAAA TTTTGTCTT TCTTTTTTGA TATTCAGAGC GATAAAAATC CGTTTTTTGA	2100
AGTTTTCAAA GTTCCGAAA CCAAAGGCAT TGCCTTGAT AAGTTTGATG AGATTATTGG	2160
TCGCTTCCAA TTTGGCGTTT GAATAGGTA GTTGAAGGT GTTGACGATT TTCTTTTGT	2220
CCTTTAGAAA GGTTTTAAAG ACAGTCTGAA AAATAGGATG AACCTGCTTC AGATTGTCCT	2280
CAATGAGTCC GAAAAATTC TCCGTTTCCT TATTCTGAAA GTGAAACAGC AAGAGTTGAT	2340
AGAGCTGATA GTGATGTTT AAGTTTGTG AATAGCTCAA AAGCTTGTTT AAAATCTCTT	2400
TATTGGTTAA GTGCATACGA AAAGTAGGAC GATAAAATCG CTTATCACTC AGTTTACGGC	2460
TATCCTGTTG AATGAGTTT CAGTAGCGCT TGATAGCCTT GTATTCGGGA TTTTCGATGA	2520
AACTGATTCA TGATTGGAC ACGCACACGA CTCATAGCAC	2560

(2) INFORMATION FOR SEQ ID NO: 115:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11303 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 115:

TATTGGATTT CCCTTGCAAT CAGTTTATGG GACAAGCACC CGGCAGCGCA GAGGAAATCA	60
ACGCCTTCTG TAGCCTACAT TTTCAAACCA CCTTCCCACG TTTTGCCAAG ATTAAGGTCA	120
ACGGTAAGGA AGCAGACCCT CTCTATGTCT GGTTACAAGA CCAGAAATCC GGCCCACTAG	180
GAAAACGAGT CGAATGGAAT TTCGCTAAGT TTCTCATCGG TCGAGATGGG CAAGTCTTTG	240
AACGCTTTTC TTCAAAAACA GACCCAAAAC AAATTGAAGA GGCGATACAA ACTCTACTAT	300
AATTACAAT CTCACTATGA TTAGTTTCC TTAACTGA TGAATAGTGA GATTTTTTGA	360
TGGGCTTTGA CTTAAATAGA AAAACACCCC ATGATATGAA ACATGAAGTG TTGTAAAGTC	420
TATGTTGTAG GTGCTTATTT CACAATTTCA ATGTGACCAG TGATAACGAA TACCATACAG	480

832

AATCTTCATA TACACTAAAC AAATGACTTT CTAATTATTT CAATTAGTTT TGGCTAGTAA	540
ATATCATTTT CAACAAACGC CCTCTCAATT CCTTATCCTG ATGATGCAAG ATATTCATTA	600
AGTCATGAGA GTTTTTCGCA TTGATGAATT GATTTAACAA TCTATCTTTT AATTCATATG	660
GAAGAGAAGC TGTCTTTAGT AGTCTAAAAA CTTCTGTCATT TAAAGATGTC CTTTTATTAT	720
CTTTCCATTC AAATTTAGCT GTATCATTTCT TATTTGGCAA TTCAATTATA GACACATTCG	780
TTCTTTTAAA ATGAATTCTA TGTTTTCTAT TGCTTGGAAC GATACTAGAA TCTCCTTGTA	840
ATGCTAACTC TACCAATCCC ATTTCCCAAT CGATTGATAA TCTTGTTTTA TATCTTTGAC	900
CATTTTGATC TTCAAGCATT TCAAAGAAT GTTGTTTTCC TGGGAATACA TACCAATCTA	960
CAACTTCAGG TAAATCAACA CCCATACCTA TCTCAGAACC AACCAAGGGA ATGATTGCAC	1020
CACCTTTTGC AAACACAGGC GTAGTCGAGA TGTCCTTATA AACACTTAAC TTCACACCAC	1080
CTGTGTATTT TTTCTCTGAA AAGAAGTCAT ACCATTCAAC TTCAGGGAAC CATACATCTA	1140
CTTTTGAGCA TTGGAATGTC AAATCCATCT TTTCTACAAT GGGAGCCACC ATCAGTTCTG	1200
TTCCAAAAA GTATTGGTTT GGAACATTAT AGCTCTCATC ATTCTCTGGA TAGAAATAAT	1260
AGATTGGACT GATTAATGGG GCACCTTCCT CATGTGTCTG TACATTATG GTATATAGAT	1320
AGGGAATCAT CTGATGTCTC AAACGAAGGT ATTTCTTCAT AATCTTAGAT GTTGTTCCTG	1380
AAAAAAACCA AGTTCTTTA CTATTAAAG GACTTCTAGA ACTATGTAAT CGAGTAATCG	1440
GACTAAAAAC ACCAACTGT AGCCATCTAG TTTGTAGCTC TTCGTCATAA TCCCCAACA	1500
TATGTCCACC GATATCATGA CTCCACCAAC TATAACCGAT ATTAGATGCT GTCGCTGTAA	1560
AATAGGGTTG AAATCTTAAG GAATCCAAAC TAATAATAGT ATCCCCTGAA AAACCAACAG	1620
GGTAGCGGTG ACTACCAGGA CCTGCATATC TTGATAAAAT CAAACCACCT TCTGCATTTT	1680
TACAACTATC CTGATAGTGA TAATGGTTTA AAAGCCAAAG TGGATCTAGC ATACCTTGTG	1740
TCCCTTGTG CCAGTCAATC CACCAAAAT CTAATCCCTG CTTTTCTAGT TCATAATGAA	1800
CATCTTTAAA GTAGGCTTCC CTAAAAGAGG GATTAAAAA ATCAAAAATA GCAGTTCTT	1860
CTAGTTCTAC ATTTAACCCC AACCGTTTGG CGATTGAGG ATAAGCTTCT TCATAAGCCC	1920
GTATCCCATC AGCAGGATGG ACATTTAAGG AGAGTTTGTG CTTTCTATCA TGAAGTTGTT	1980
GCAATAACTG TTCTGGATTG GGTATTAAAG TTCTATTCCA ACTATATCCT GTCCAGCCAC	2040
TTCCAAAGCG AGCTGGAATG TCAGTTATAT GCCAATCCAT ATCTAACACA CCGATAGATA	2100
ATGGAATTTT CTCTGTTTCA AATCTGTCTA TTAAATCCAA GTATTATCC GACGTATAAG	2160
GCCAATATCT ACTCCACCAA TTGCCTAAAG CATATCTTGG CAACAAGGT GTTGAACCAG	2220
TCAAATGGTA AAAATCTCTG ATTGCTCCTC TATAATCATG CCCATAGGCA AAGAAATACA	2280

833

GGTCAATTTG ATTTTCTCTC TCAATATAAC CAGATTGTTC ATCCCAAATA AATCCTTGAG	2340
AATCATCCAA TAAGGCTATA CCATTTCGGC TAATAATTCC ATCTTCTAAC GAGATTGCTC	2400
CATCTGCCTT ATCCAGAGTC CGAGCTGTTC CTTTAAACGT TTCAATAGAT TCACCAAAAT	2460
ACCAGCGACT ACCATATACG GCAAAATTTC CTTTAAATTC TATAAATAAA TTTTCGGCGT	2520
TAAATTCTCC TTTATTAAAG TGCAGATGAA AATAGTCCGT CATAATATCT AGTACGTTTG	2580
ATGTCTCGAT ATAATCTAAC GAAATTGGC CAAAATCTCT ATTATAGATA AGTTGTGTCG	2640
TTCTATCCTC AAAACTTCCA GTTTGAGAGT ATTCTAACCT TACTAGCTTG TCTGTTAATA	2700
CAGAGATTCTG ATAAACTCT CCCTTAAAAA TTTCAATTT GTTTCCTCC TTTATGGTA	2760
GCATAAAAA AGAAGCACC ATTTTGTATG CGTTTTCAT TATTCTGAAT GCAATGTTCT	2820
ATCTGTTATA TCTATGACAA ATAATAGTCA ATTGAAAAA TGCAGTGGAC AAAATATCTT	2880
TTAAACAAAC AAGAGTTTAT TAAAGAGTTA TCACTTTCA ACTTTCTAA GCTTATGCAG	2940
TTGTGAAACA AACTACTTTT AACTATTAA CTAAGATAGG ATTGATAAAT AATTCAAAC	3000
TCTTACTAGC AATCATACGA TATTCAAGCT CACGTGCTTT TTTCTTCCT GCTTATTTCT	3060
TAGAACTGAA GAACCCGGAT CGGTATATAA ATTATCCGA TCAACATAGT CATAAGATTC	3120
ATAACAGTTG CGCTTCATTA AGTCATCCCC AGAGCAAGAG CTTTCATCTG TAATTTTCA	3180
ACATCACTAA CCGTAGGTCG CCATCCTTCA ATCATATTTG TACTTAAAGC ATACCAAACA	3240
CTCTTAAAA CGGATCGGTT TTCAAAGCT ATTCCCATGA TTGTCATCTT TTCTTTATCT	3300
ATATCTAAGG ACATATGCTA CCTCCTTTAG ATACATTATA CCATGTTTCT CTGTAGCTTT	3360
TAAAAATTTT ATTTGTTTG TCATATCTAA GTTTTCAGCA CGCTTATCCT ATTTTATAAG	3420
CCTCAAACCC AAATATAAAA CGCATTTCTT TTGCTTTTTT ACTATTGTAT CGTATTCTAC	3480
GATAACATAC TTTACTTTAT TGTTTTTTTA AATAACAGCA GTTCCCTGTT TATCAACTAT	3540
TCGAACTACT TTCTATTTTG CTTCATACCC TACATAGCGA AAAAATATGA AAAAGCAGAG	3600
AAGAATATCT TAAAAAGACC TCTTCACTGC TAATATTAAC ACTCATTTT TAAACTATAT	3660
GGATTCTATC ATCGAGTATA CTTTTTACT TATTAGATAC CTGCTCTTC TTTCACCAAT	3720
TTTTGATCAT ATACACGGAT GAATGGAAGA TAGACTAGGA ATGCTGCAA TGCACATACT	3780
AGAGCAACTA ATACAGCTCG AAGATCTGCT GTCCCTAAGA AAGCTCCAAT CCCTACTGGA	3840
GTGGCCATG GAACCTGTGC GATAATTGGC TTAATAAAGT TTAGAGAATT CGCTACGTAA	3900
TAAATAGTAG CAGTAACCAT TGGTGCTAAA ATAAATGGTA TAGCCAAGGC TGGATTATAG	3960
ATAATAGGTA ATCCAAAAAT TAATGGTTCA TTAATATTAA ATAAGGCTGG AACTACAGAT	4020

834

GCTCGTCCTA TTGCTTTAAG CTGTTTCAGAT TTAGAGGCAA AAGCAATATA TAAACATAGT.	4080
CCTAAAGTTG CACCAGAACC ACCTGCAATT ACAACATAT TAGAAAATTC ACCTGCAACA	4140
GCGAAGTGCC CGCCAGCAGC ATTTTCAGCC ATGTTAGCAA GAGCAATTGG ACTAACAAAT	4200
GCAAAAACAA TGTCGCACC GTGGATACCT ACAATCCAAA GTAGTTGAGT CAATAGATAA	4260
ATAATCATT AACCATCCA CGAATTAGTC AGATTGGATA CAAAACCAA TGGAATTGCA	4320
ATGACTTTAA AAATATCTGT TCCCATGCT ACAAGAAGAC CGTTGATAAA GATAACAACA	4380
AATGCAACAA CAAATCCGG AACCAAGCG GTAAATCCAC GAGAACTCC TTCTGGAACA	4440
GCTTCAGGCA TTTTAATAAC CCAATTATGT TTAACACACA TACGATAAAT AAGAACAGTC	4500
ACAATTGCCA TAATGATTGC GGTAAAAATC CCTGTTGTCC CAAAACGTGC GACTACATTT	4560
CCCATTGCC ATCCATCTGC AATTACTGCA CCTTCTTTTA GACTTGTCAC AGTCTTCATC	4620
ATTCCACCAT CAAAATGAT TTGCGGTACT GTCATGACAA AAGCCATCAA GGCAAGCAAG	4680
GCACCATTA GAGGATTCAT ATTGAGTTCT TCTTCCTCTG CATAAATTTT TGTCAATTCA	4740
TATGCAAGTG ATAGAACGAA ATAAAGAGAT AGAGAACCCA TAGTCGCATA GTTTGCAACC	4800
ATGTAAAGTG ATGTGAATTT ATCAAATGAA GCAGAGAAAA TATCTGCCAC AATTGGCCAA	4860
AATGAGAAAG CTTGTGGCAA AATACTGAAT ACCAAAAACA TTGATCCTAC AATAGTAAAT	4920
GGTACAGCAG CCATACCTGC AGCCGTGATA GCACGTACTA CTTTAAACTG AGCAAGTTTG	4980
CCCATTGGTC CCATAACATG GTTTTCAAGA AAACCAACA ACCCGTTTGT TTGATCCATA	5040
AATAGACCTC CTTAATAAAA CATAATAATT TTTACTTTCT AAAGACTAGT TTCAAATACA	5100
AATTATACTA GATCAGGATT ATAACTAAG TGAGTTCTTT TCCAATTGGA CAAATTGTTG	5160
ATAAGCCTTA TCTGTTGCTT TATAAATTTT TTTAATTCTT CTAATGTCTA ACAAACCTCAG	5220
AACTAAACCT AATAGAAGAA CTACAAAAC AAATAAACGT GCTACTTGGT TATTTTCAAA	5280
AATCGGAAAA AGATTCTTAA ACCAACTTGT CCAAGTTAAA ACAAGTAATC CTATTGAAAT	5340
AAGCATTTGT ATTCTAACAA ACATTAGTGT TATTCCTAAC TTTCTTTTCC TATTTCCATA	5400
AAGTTTAAAT TGTTCACAG TTGCTAAAAT AGAAAATACT ATGAGCATAA TGGGGAAAAT	5460
AATAATAGGC GAGGGACTAA TAACTGACT CAAAAGCCAA TAAATATTCC CAAAAAGAA	5520
GAGTGCTATT GAATAACGTA GAAGAAGATA TCGATTGAAA AAAGTATTAG TTAGAGCCAT	5580
CTCTCGACGT TGTGTTCAA TCTTTTGTCT TCTTTTCTTA TCCATATCAT TTCCTCCTTA	5640
TATAACAACA CATATTTAGT TAACTTTCTT ATAAAGAGCT AACATTTCCCT TTGCTACTTC	5700
TAATAATGTC ATAGTGGTCA TTAAATGATC TTGAGCATGT ACCATGATAA TTTCAATTTT	5760
AATTTCCACT CCACTTGCCT ATTCTTGCAA GAGTTTGGTT TGTGCATGAT GCGCTTCAAG	5820

835

AATTATCTCA	TTTGATTGAT	TTAATTTACT	TTCTGCATCA	TCAAAACTAC	CTTCTCTCAT	5880
TTTTGCAAAT	GCTTCATGTA	TTTCTGACCT	TGCATTTCCC	GAATGCAGGA	TAATTTCAAA	5940
TGCTGCAACC	TGCAGTTCCCT	CTTGATTTCAT	ATAAACCTCC	TATTTTATCT	TCTCAAATAT	6000
GTTAATAAAA	TCTTCAAAGT	TATTGCAAGA	TATTAGCTGA	TTTTGCAATT	CATCATTCTC	6060
TGTCAGAGAG	ACTATCTTTT	TAGTCACAGT	TGCCAAACCT	TCGTTCCCAT	ATATTGATGG	6120
AGATAGAAGA	AATACTAGCT	GGACATGTGA	ACTTTGATTA	TCCCAGAGTA	ACGAATCTTT	6180
ACAAATTGCA	ACCGAAACCT	TTCCCTCTGT	ACCAAAGGGC	TGAATAGGAT	GCGGAACTGC	6240
AATTTTTTCA	GAAAAACAA	CTGAACTTAA	TTCTTCGCGC	TGTTTAATTC	CATAAAGTAA	6300
AGATTGTTCA	AACTCATTGG	ATTCACCAAC	AGATAAACTC	TCAACCATCT	TTTCAAGTAA	6360
ATTTACCTTG	TCTGATTTCAG	TACATATTAA	AAAGTTTCT	TTACTAAAAT	ACTGTCTAAA	6420
GCCGTTGTTT	TCAAATTTGT	TAATCTTTGA	TGATTGTACA	TAAGTAGAAA	CTTGCATCTA	6480
ATCCATAGCT	TTTCTAATCA	TTTCCATCTC	ATCACTCTTA	AGAAACACAC	TAACTTTAAA	6540
AACTGGGATT	TGAAAATATA	GATTTGATAA	ATCAATAGCT	GACACTATAA	AATCTATTCC	6600
TTTAAGTTT	TCTTGATTCA	ATTCATAGTA	GCCTATTACA	TCAACAACCT	CTACTCGCTT	6660
CCCAAACCTCC	GTTTCCAAAC	GATTTCCTAA	CATTTGGGCT	GCACCAAATC	CTGTTGCACA	6720
AATAGCAAGA	ATATTAAACT	TAGTACTCTC	TTTGCTACGT	TCCATAGCAG	CTAAAAAGTG	6780
AAGACTTACA	TATGCTACTT	CATCATCTGA	TATTGTCCAC	TCCAAGAACT	TGTCCATATT	6840
TGCAAGAATT	TCTCTAGTCA	TAAAGAATAT	ATCACTATAA	TTCTGTTTAA	TTTCATCTAC	6900
CAAAGGGTTA	TTTAAGGTAA	TCCGGCTTTC	TAAACGTACT	TGTAGTGTCA	TTAGATGAGT	6960
TATCAATCCT	TCAATTAGTT	GGAAATCTGA	AGAAAAGTTA	TACATATCAT	CTAATCCTAA	7020
ATTCTGAAAT	GTTTAAATA	AAGATTTTTT	TAAAACTTCT	TCAGAAATAT	TCTTCTGATT	7080
TTTTTGACAT	TGTTGACTCT	TAGCTAACAA	ATGCAAAGTA	ATGTAGTCTA	TTTCCTGAAC	7140
TGGAAATTCC	TGATTTGTGA	CTTCTCTTAC	TTTAGAAAGA	ATTCTTTGGG	CAACCTTTCT	7200
CTCTATTGCA	TCATCAGTCA	TCTGACAGTC	TATATTTTTT	ATTTCAAATC	CGGATTTTAA	7260
ACGAATCACA	GACAATGCTA	TGTGAACCTAC	TAAATTCTGT	AGTACAAAAT	CAGATAGTTT	7320
TAGGTTGGCC	TCTTGGCATT	CATCCAAAAC	AATTCTAGCA	AATTCTTCTA	ATGGAACAGT	7380
TTGATCAAAA	AAGTTAAATT	TTACATAGCA	ATGTATTGTT	TTAAAAAATT	GATTCTCTAG	7440
GAAATAATTT	ATGATAAAAC	GTCGTTTATC	ACGTTCCCTG	CCTGAGACAT	AAACTCCTTT	7500
ATTCGCCCTA	CTCTCAATGG	ACAAATTATA	CTCTGATAAC	ATCACTCGTA	TCTTTCTGAA	7560

836

ATCATGAGAT AATGTTGAAC GACTAACGTA AAGTTCATCA GCTAAATCAT CAAAAAGAAC	7620
TGGAACCTGC TCAATAATA ATTTATTTAA GATAAATACT AAACGATCAT CACCTTTTGA	7680
AACCGCAGTT TTCGTATAGT CTTCTTCCAG TTCATAAGTT TGTCTAAACT CCTGGTAAGC	7740
GCCTTGATTC TCAAAAAATA TTTGATACCC TTGACCTTGT TTTGAAATCA ACCGGACTCC	7800
TTGAATAATC ATTGTCTTCT CAATTAATTT CAGTACATTA CGGACAGTTC TATCTGAACA	7860
GGATAAATAT TCTGCCAGTT CTTTGCTTGT AACAAAACGT TCCTTATTTT TTATTAAAAA	7920
TTGAAGGATA TCTTTCCTCT TAATGTTTAA CACATTCATT CCCTCCTAAA ACGTATGTTT	7980
TCATATATTG AAGCATATTA TACACTTAAA TCAGTTTATA TCAAACTCAA AACAAATTTAT	8040
CTTAACCTAA ATATTTATTG ACATTTTCATG TGTTCATCAA ATATTCCTCAA GAATCAAATT	8100
AGCCATTTTT TCAATTCCTCA TTGGAATAGG AATATAGGCT TGAGGAGGTA TTTGTACAAC	8160
TGGTTTTCTT GCTTTAGAAC CAGCCTCTTC AAATTGCTTA AAGTACATTT TTGTTTGAGG	8220
ACTGACAAGA TACAAATCAA AAGCTGCTGC TGCGATAGCT TTCCCTCCTT CAGTAGCACT	8280
AATAGCATCA ACTACAATAT CTTTCCCTTT TCCTTTTAGA AACTCTGTTG TTTCTGTGC	8340
CATAAGTGAT GAAGACATTC CTGCTGCACA AATAATTAAA GCTTTTGCCA TAATATTTTC	8400
TCCTTTTCTT AAATCCAATC AAAGCTGTGC TAAGTTGGCT TATTTGTTAT CTATTTTTAT	8460
TATAAAATAA AGCGTTTCCA ATGACAATTC CCTCATTTTC CTAAATGATA TGGAAAAAAA	8520
TTATTTATAC TTCAATTTAT AAAATAAAAT TATTCCTGAG AGTAGAAATG AAACACTATT	8580
TGCTAAAATC AAAGGCAAGT CTCCTATACG AATACCATGA GCAAGCCACA ATGCAATACC	8640
AATAACTTGC ATAACATACA TACCTAGAGC AATAGATCCT GTGTCCTTTG TCTTAACCTAC	8700
ACGAAAAACT TGTGGTAAAA ATGCAAAATG TGTTAAAATT GCTGCAATAC TTCCAATCAT	8760
ATGTCACCTC AATATGCTAA ACAAACTGAG AATAATCTCA GTTTGTTTAT ACTATTCTAC	8820
TGATTCACCG TTAGATGAAA TAACCTCCTT ATACCAGCCA AAAGATTTTT TCGGGGAACG	8880
ATTATAACTT CCCTTCCCAT TATCATCTTT ATCTACATAA ATAAAGCCAT AACGTTTCCG	8940
CATTTACCG GTACCAGCTG AAACCAAATC AATACATCCC CATGGAGTAT AACCCATTAA	9000
ATCAACACCA TCTTCAACTA CAGCCTTTTT CATTTACGA ATATGGGCAC CTAGATATTC	9060
AATTCATATA TCATCATGTA CCATACCATC TGCTGCAACT TGATCTATAG CTCCAAAACC	9120
ATTTTCAACA ATAAAGAGTG GTAAGTGATA GTGGTCTGTA AACCAATTTA ACGCATAACG	9180
CAAACCTTCT GGATCAATTT GCCACTCCCA TTCAGAAGCC TTAACATAAT TATTTTTCAC	9240
TAAATCTTCT GTTTCAGAT AATCAAAATA AGGATTATTT TCACGATGAG AGTCGATAGC	9300
AAAGGACATA TAGTAACCTA AACCAATGTA ATCTACAGTC CCACCAAGTA AATCTTCTTT	9360

837

ATCCTGGGCA GTAAATCAA CTGAAATACC TTTTCGTTCC CAATACTTGA AAATATGCTC	9420
AGGATATTTA CCTAAACAT GCACATCAGC AAAATAATAA CGCTTCTGCA TAGCTTTCAT	9480
TGCCATTAAAG ATATCCTTAG GATTGCAAGT AACTGGATAA ATGGACACA TCGCAATCAT	9540
ACAACCTATT TGAAATCTG GATTAATCTC ATGACCAATT TTTACAGCTC GTGCAGAAGC	9600
AACTAATTCG TAATGTGCTG CTTGATACAT AATTGCTTCT CTATTATCAC CTTCTCATA	9660
TACAATACCT GAGTTAGTAA ATGGTGCAA ATCTTCCTGA TAATTCGCTT GATTATTGAT	9720
TTTATTGAAA GTCATCCAAT ATTTAACCTT ATCTTTGTAA CGTTTAAATA CGACTTCTGC	9780
AAAACGAGCA AAGAAATCAA TCAATTCCTT ATTTTCCAA CCACCATATT CGGTCACATA	9840
GTGATAAGGC ATTTCAAAT GAGATAGAGT GATGACAGGT TCAATACCAT TCTTTAAGCA	9900
TTTATCAAAA AGATTATCAT AAAACTGTAA TCCTTCTTCA TTCGGCTCTA ACTCATCACC	9960
TTTTGGAAG ATACGTGTCC ATGCAATAGA GGTACGGAAG CACTTGAATC CCATTTCAGC	10020
AAAAAGTGCT ATATCTTCTT TATAACGGTG ATAAAAATCT ATCGCCTCAT GATTGGATA	10080
ATATTTACCC TCTAAACTC CCAAAGTAAT TTCACGAGCT ACTCCATGAC GACCAGCAGT	10140
CATAACATCA GCAACACTAA TTCCCTTGCC ACCTTCTTGC CATCCACCTT CAAGTTGATG	10200
AGCAGCAACA GCACCACCC ATAAAAATCC ATCTTTAAAA GTAGTCATCT TTTTCTCTCC	10260
TGACTTTGAT ACTCTTATTA TAAACCTTAA ACCAAAAGAT GAAAACGCAT TCTTTTCCT	10320
TATTGTAAAG GAAAGAAGTA ATTTTAAATG GAAATAGAAC AATATCTTCT TGTATTCTCG	10380
TAATGATATC TTTACGATTT TCAATACTTT CAAACTACAA AACTCTCAC AATAATTCTA	10440
ATTCCCTGTG TCTATAAAG ACTTATCGCT TTCTGGCATC CCAGAATCAT CTTCTATATA	10500
ACGTTCAACT TGCATCTGCA AGTGATATTT TTTTCTTAAA TCTAAGATTT TCTGCATTGT	10560
CTTTGATTGA TAATGTTTAT CTAAAGTTTC TTGATTTATC CACTGATCAA TAAGGAGAAT	10620
AGTTCCCTCT TTTCAATTG GTAAAAATA TTCGTATTTT AAGTTACCTT TTTGATTTCT	10680
AATTTCTTTA ACAAGGCCAC TATCAAGCAT TTCTCTTGCA AACTTTATTG CACTATCTCC	10740
ATCACCTTTA TAATATACAT GAATAGTCAA TGTCATCTTA TATCCTCCAA AATCATCCTT	10800
CAATTTTAAA AAAACAAGTT TAGATGAGGA TCTAACTTG TTTTTATGA ACTAATTATC	10860
TAACGPTTCG CCATTACTTT CAATCACTTC TTTATACCAA TAAAATGATT TTTTCTTATA	10920
GCGATTTATA GTCAATTGAA ACAAGAGCAG GACAAAAGAG CCTCATAAAA GGTATTGCAA	10980
CTTGGAATA CCTTTTGTAG GTGCTTTTGT ATATGAGCCC ATGTTTTCTC AATAGGATTG	11040
TACTCAGGTG AGTAGGGAGG AAGAGGTAAA AGTTTATACC CAACTCTTC ACACAAGAGT	11100

838

TCTAGCTTCC CCATTCTATG GAATCTTGCA TTATCCATAA TAATAACCGA TGGTGTGGTT	11160
AATGTTGGTA AGAGAAACTT CTGAAACCAA GCTTCAAAAA AGTCGCTCGT CATCGTCTCT	11220
TCGTAAGTCA TTGGAGCGAT TAACTCACCA TTTGTTAGAC CTGCAACCAA AGAAATCCTC	11280
TGATATCTTC TTCCAGATAC TTT	11303

(2) INFORMATION FOR SEQ ID NO: 116:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3112 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 116:

CCTTAGATTT CCACTTGCCA GAGGAATTGA TTGCCCAAAC GCCCCTTGAA AAACGTGATG	60
CCTCCAAACT CTCATCGTC AACCGTGAGA CAGGAGAAAT GCAAGATAAA CATTTCCACT	120
CTATTATTGA TATGCTGGAA CCTGGTGATG CCCTTGTCAT GAACGACACC CGAGTTCTCC	180
CTGCCCGCCT CTATGGTCAA AAAGTGGAGA CAGGAGGTCA TGTGGAACCT CTCCTCCTTA	240
AGAACACTAG TGGAGACGAG TGGGAAGTTC TGGCTAAACC TGCCAAACGC CTCAAGGTCG	300
GTACTCGTAT CAGCTTTGGT GATGGCCGCC TCAGCGCTGT CGTTACAGAA GAATTGACCC	360
ACGGGGGACG CATTGTCCGC TTGAATACC AAGGAATTTT CCTAGAAGTC TTGAAAGTC	420
TGGGAGAAAT GCCTCTGCCA CCTATATACC ACGAAAAATT AGATGACCGT GAACGTTATC	480
AAACCGTCTA CGCCAAGGAA AGTGGCTCTG CTGCAGCACC GACTGCTGGT CTTCACTTCA	540
CCAAAGAACT GCTGGCAGAA ATCCAAGCTA AGGGTGTTCA TCTAGTCTAT CTGACTCTCC	600
ATGTCGGA CT CGAACCTTT AGACCTGTTT CTGTGGATAA TCTGGACGAA CACGAAATGC	660
ACTCAGAGTT CTATCAACTT TCTGAGGAAG CTGCTGCCAC CCTTCGCTCT GTCAAAAAAA	720
ATGGTGGTCG TGTCATCGCT GTCGGAACCA CTTCTATCCG CACCTTGGA ACTATTGGTT	780
CCAAGTTTGA TGGGCAAATC CAAGCAGATT CTGGTTGGAC CAATATCTTT ATCAAACCTG	840
GGTATGAGTG GAAGGTCGTG GATGCCTTCT CAACCAACTT CCACCTGCCA AAATCAACTC	900
TGGTCATGTT GGTTCCTGCC TTTGCAGGCC GTGAATTAGT CTTAGATGCC TACCACCATT	960
CCATCCAAGA AACTACCGC TTCTTCAGTT TTGGTGACGC CATGTTTATT TATTGAGAAA	1020
GAATTTCTCT AAATCTTCTA ATACCAATAA ATCGCTAAGA TATTATTTCA AAGAACATCT	1080
ACAAATGAAA CTCTAGCTAG CTGTAGAAGA GGCCTAGTAC ATTGAAATTA AAATGCTTCC	1140
CCCTAGCTTC GAAAATATTG CCATAGATTG CGTTGACTCT CCAAATTGAT TCATCTATAT	1200

TTTATTTTCAG CTTCCTATAC TTTCTTCGCT GTTTGTAAAT CAAAATGCAA GACACATGAG	1260
TAGCACCATA TTTGTTACTC TTATCTGTCC TCTCAAGAGA CTATTATGAG TTATTTTCAGA	1320
ATCATTCACT ACTTTGACCC TGACTCTCCT TAGTCTCAAA ATCAAAGACT TATACTCTTC	1380
AAAAATCTCT TCAAACCGCG TCAACGTCAC CTTGGATTAT ATATGTGatC TGaCTTCGTC	1440
AGTTCTATCT ACAACCTCAA AGCAGTACTT TGAGCAACCT GCGACTAGTT TTCTAGTTTG	1500
CTCTTTGATT TTCATTGAGT ATTAAACAAA AAGTGAACAA ATCTGAATTC TAATGTACAG	1560
AAGACTAGGC TTGTTCACTT TTTTATAGTC GCTATAAGAT GACCTTATCT ATAGCTTTTT	1620
ATATATAATT ATATATTCAG ACATACTATT ATCAATTTTG TCGCAGGGAG GAATCTGTTA	1680
ACGCACCCAT TCACCATTAT CATTGACTCT ATAGCCATCT ATACTTGTAT TGACCGCTAA	1740
CTCACCCGAT GTATTTACAT AATACCATT ACCACCACT TGGAACCATT GATTGACTTT	1800
CATAGAACCG TTGCTGTTGA GGTAGTACCA TGAACATTA ACTTGTACCC AACCTGTTGC	1860
CATGGAACCA TCAGTATTAT AAAAATACCA CATACCATT TCTTGTTTCC AGTCTGTTGT	1920
TGGAGCAACT GCTTTAGCTG GTTCTACTGC TACATCTGTT CCTTGCTTAG ATGTAACAGA	1980
TACAGGATAC GAAGGAATAG ATGATTGCTC AGGAACAACA ACTTTTTCAG GTTCTCTCGT	2040
CCCTCTCCTT ATACGTCTTT TTACCATCTC TTTAGTAATT TGACGAGAAG TAGTTTCTTC	2100
AATTGTTCCA TCACGTTTCA CTACAGTATA GATTGTAGTA AGAGTAATTT ACCAATTTCT	2160
CCTACTCTCT CTACTTCTTG ACTTTTATCA AGAGTTGGGC CATCGAGATA TTCTGTTTCG	2220
ATTGGAATTT CTGGACAAG AACTTGGGGC TTGGTTCTTT TTTTAACAAC TCTTGTTTGA	2280
GAGTCTTTTT TTTGACTTAA AGTACTCTCA GTTACTTGTC CACTCTTCC ATCTACATTA	2340
TAAGTTATCG TTGTAAGTGT TTTCCCATTC TTCTCTAGAG TAATCTCTTG CTCCTGTCCT	2400
GCAGAAAGGT CATGTCTGTC TTCATATTTA GTAGCAATG GAACAAGAAC TTCTTCAACC	2460
TTGCTTTTAG CTGGAACCTT GATAACTGTA TCCGTGGCTT CTTTCTATC AACAGTAACC	2520
TGTTTCGGTAA CATAACCAGT CTCTGGATTA ACATCGTAGG TCCTTGTCGT AGTTACATAG	2580
CCATCCTCTC CATCAATTGT AACAGGATTT TCACTACGGT CTTTGTTC ATCTTTTCA	2640
TAACGAATTC GCGTACTTGA AATTTTCTTG GTTACTACCT TAGGTTTAGT CGCTACTTTT	2700
ACAATAATAT CCCCATTTGTC AGCGTCATCA TACTCTATTC CCTCTTCTTT ATCTCTAGTA	2760
TCATCTCTGA CATATTGAAT CCCATCAGCA GCATGAACAA AACTTGATTT CAGATTCCTC	2820
CTAAAAATAA AGTTAGCCCG ATTACCGCAG AACCAAAAAT CTTTCCGAGT TTACGTATTG	2880
CATAGCGCTT ATTAGTATTA GATTTTGCCA TTACATCCTA CTTCTAGTAT AGCATCTTTT	2940

840

CTATCAAACG TTAAACAATA TACGTTATAT ATAAATAGA CTTAGAATGA TATATTGATT	3000
ATTGAACTAA CACTTTAACT ATATCGTAAT CAATCTCATA TATAAAGGAT TGCAGACATC	3060
TTATCTAAAT ACATGCGAAT ATATTTAGAT ACAAACATTC CAACTTGATA AT	3112

(2) INFORMATION FOR SEQ ID NO: 117:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4327 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 117:

CCCCAAAATC TCTTCAAACC ACGTCAGCTT CGCCTTGCCG TAGTATGGTT ACTGACTTCG	60
TCAGTTCTAT CCACAACCTC AAAACAGTGT TTTGAGCATC ATGCgGCTAG CTTCTTAGTT	120
TGCTCTTTGA TTTTCATTGA GTATAAAAC AGATGAGTTT CTGTTTCTT TTTATGGACT	180
ATAAATGTTT AGCTGAACT ACTTTCAAGG ACATTATTAT ATAAAAGAAT TTTTGAAC	240
TAAATCTAC TATATTACAC TATATTGAAA GCGTTTTAAA AATGAGGTAT AATAAATTTA	300
CTAACGCTTA TAAAAGTGA TAGAATCTAT TTTTATGTAT ATTTAAAGAT AGATTGCTGT	360
AAAAATAGTA GTAGCTATGC GAAATAACAG ATAGAGAGAA GGGATTGAAG CTTAGAAAAG	420
GGGAATAATA TGATATTTAA GGCATTCAAG ACAAAAAAGC AGAGAAAAAG ACAAGTTGAA	480
CTACTTTTGA CAGTTTTTTT CGACAGTTT CTGATTGATT TATTTCTTCA CTTATTTGGG	540
ATTGTCCCCT TTAAGCTGGA TAAGATTCTG ATTGTGAGCT TGATTATATT TCCCATTATT	600
TCTACAAGTA TTTATGCTTA TGAAGAGCTA TTTGAAAAAG TGTTGATAA GGATTGAGCA	660
GGAAGTATGG TGTAATAGC ATAGGCTGAT GTCCATCATT TGCTTATAAA GAGATATTTT	720
AGTTTAAATG CAGCGGTGTC CTGGTAGATA AACTAGATTG GCAGGAGTCT GATTGGAGAA	780
AGGAGAGGGG AAAATTGGCA CCAATTTGAG ATAGTTTGT TAGTTCATTT TTGTCATTTA	840
AATGAACTGT AGTAAAAGAA AGTTAATAAA AGACAACTA AGTGCAATTT CTGGAGTAAA	900
TGTCTTATTT CAGAAATCGG GATATAGATA TAGAGAGGAT CAGTATGAAT CGGAGTGTTT	960
AAGAACGTAA GTGTCGTTAT AGCATTAGGA AACTATCGGT AGGAGCGGTT TCTATGATTG	1020
TAGGAGCAGT GGTATTTGGA ACGTCTCCTG TTTTAGCTCA AGAAGGGGCA AGTGAGCAAC	1080
CTCTGGCAAA TGAACTCAA CTTTCGGGGG AGAGCTCAAC CCTAACTGAT ACAGAAAAGA	1140
GCCAGCCTTC TTCAGAGACT GAACTTCTG GCAATAAGCA AGAACAAGAA AGGAAAGATA	1200
AGCAAGAAGA AAAAATTCCA AGAGATTACT ATGCACGAGA TTTGGAAAAT GTCGAAACAG	1260

841

TGATAGAAAA AGAAGATGTT GAAACCAATG CTTCAAATGG TCAGAGAGTT GATTTATCAA	1320
GTGAACTAGA TAAACTAAAG AAACCTGAAA ACGCAACAGT TCACATGGAG TTTAAGCCAG	1380
ATGCCAAGGC CCCAGCATTG TATAATCTCT TTTCTGTGTC AAGTGCTACT AAAAAAGATG	1440
AGTACTTCAC TATGGCAGTT TACAATAATA CTGCTACTCT AGAGGGGCGT GGTTCGGATG	1500
GGAAACAGTT TTACAATAAT TACAACGATG CACCCTTAAA AGTTAAACCA GGTCAGTGGA	1560
ATTCTGTGAC TTTCACAGTT GAAAAACCGA CAGCAGAACT ACCTAAAGGC CGAGTGCGCC	1620
TCTACGTAAA CGGGGTATTA TCTCGAACAA GTCTGAGATC TGGCAATTTT ATTAAGATA	1680
TGCCAGATGT AACGCATGTG CAAATCGGAG CAACCAAGCG TGCCAACAAT ACGGTTTGGG	1740
GGTCAAATCT ACAGATTCCG AATCTCACTG TGTATAATCG TGCTTTAACA CCAGAAGAGG	1800
TACAAAAACG TAGTCAACTT TTAAACGCT CAGATTTAGA AAAAAACTA CCTGAAGGAG	1860
CGGCTTTAAC AGAGAAAACG GACATATTCG AAAGCGGGCG TAACGGTAAC CCAATAAAG	1920
ATGGAATCAA GAGTTATCGT ATTCCAGCAC TTCTCAAGAC AGATAAAGGA ACTTTGATCG	1980
CAGGTGCAGA TGAACGCCGT CTCCATTGCA GTGACTGGGG TGATATCGGT ATGGTCATCA	2040
GACGTAGTGA AGATAATGGT AAAACTTGGG GTGACCGAGT AACCATTACC AACTTACGTG	2100
ACAATCCAAA AGCTTCTGAC CCATCGATCG GTTCACCAGT GAATATCGAT ATGGTGTGG	2160
TTCAAGATCC TGAACCAAAA CGAATCTTTT CTATCTATGA CATGTTCCCA GAAGGGAAGG	2220
GAATCTTTGG AATGCTTCA CAAAAAGAAG AAGCCTACAA AAAAATCGAT GGAAAAACCT	2280
ATCAAATCCT CTACCGTGAA GGAGAAAAGG GAGCTTATAC CATTCGAGAA AATGGTACTG	2340
TCTATACACC AGATGGTAAG GCGACAGACT ATCGCGTTGT TGTAGATCCT GTTAAACCAG	2400
CCTATAGCGA CAAGGGTGAT CTATACAAGG GTGACCAATT ACTAGGAAAT ATCTACTTCA	2460
CAACAAACAA AACTTCTCCA TTAGAATTG CCAAGGATAG CTATCTATGG ATGTCCTACA	2520
GTGATGACGA CGGGAAGACA TGGTCAGCTC CTCAAGATAT TACTCCGATG GTCAAAGCCG	2580
ATTGGATGAA ATTCTTGGGT GTAGGTCCTG GAACAGGAAT TGTACTTCGG AATGGGCCTC	2640
ACAAGGGACG GATTTTGATA CCGGTTTATA CGACTAATAA TGTATCTCAC TTAGATGGCT	2700
CGCAATCTTC TCGTGTATC TATTCAGATG ATCATGGAAG AACTTGGCAT GCTGGAGAAG	2760
CGGTCAACGA TAACCGTCAG GTAGACGGTC AAAAGATCCA CTCTTCTACG ATGAACAATA	2820
GACGTGCGCA AAATACAGAA TCAACGGTGG TACAACAAA CAATGGAGAT GTTAAACTCT	2880
TTATGCGTGG TTGACTGGA GATCTTCAGG TTGCTACAAG TAAAGACGGA GGAGTGACTT	2940
GGGAGAAGGA TATCAAACGT TATCCACAGG TTAAAGATGT CTATGTTCAA ATGTCGCTA	3000

842

TCCATACGAT GCACGAAGGA AAAGAATACA TCATCCTCAG TAATGCAGGT GGACCGAAAC	3060
GTGAAATGG GATGGTCCAC TTGGCACGTG TCGAAGAAAA TGGTGAGTTG ACTTGGCTCA	3120
AACACAATCC AATTCAAAAA GGAGAGTTTG CCTATAATTC GCTCCAAGAA TTAGGAAATG	3180
GGGAGTATGG CATCTTGAT GAACATACTG AAAAAGGACA AAATGCCTAT ACCCTATCAT	3240
TTAGAAAATT TAATTGGGAA TTTTGTAGCA AAAATCTGAT TTCTCCTACC GAAGCGAACT	3300
AGAGAGATGG GCAAAGGAGA GATGGGCAAA GGAGTTATTG GCTTGGAGTT CGACTCAGAA	3360
GTATTGGTCA ACAAGGCTCC AACCCTTCAA TTGGCAAATG GTAAAACAGC GACTTTCCTA	3420
ACCCAGTATG ATAGCAAGAC CTTGTTGTTT GCAGTAGATA AGGAAGATAT CGGACAGGAA	3480
ATTATTGGTA TAGCTAAAGG AAGCATCGAA AGTATGCATA ATCTTCCTGT AAATCTAGCA	3540
GGTGCCAGAG TTCTTGCGG AGTAAATGGT AGCAAAGCAG CGGTGCATGA AGTCCAGAA	3600
TTTACAGGGG GAGTTAATGG TACAGAGCCA GCTGTTTCATG AAATCGCAGA GTATAAGGGA	3660
TCTGATTCGC TTGTAACCTCT TACTACAAAA AAAGATTATA CTTACAAAGC TCCTCTTGCT	3720
CAGCAGGCAC TTCTTGAAAC AGGAAACAAG GAGAGTGACC TCCTAGCTTC ACTAGGACTA	3780
ACAGCTTTCT TCCTTGGTCT GTTTACGCTA GGGAAAAAGA GAGAACAATA AGAGAAGAAT	3840
TCTAAACATT TGATTTTGTA AAAATGGCTC TTTGTCAACT GTAGTGGGTT GAAGTCAGCT	3900
AAGCTCGAGA AAGGACAAAT TTTGTCTTTT CTTTTTGAT ATTCAGAGCG ATAAAAATCC	3960
GTTTTTTGAA GTTTTCAAAG TTCCGAAAAC CAAAGGCATT GCGCTTGATA AGTTTGATGA	4020
GATTATGGT CGCTTCCAAT TTGGCGTTAG AATAGTGTAG TTGAAGGCCG TTGACGATTT	4080
TCTCTTTGTC CTTTAGAAAG GTTTTAAAGA CAGTCTGAAA AAGAGGATGA ACCTGCTTTA	4140
GATTGTCCTC AATGAGTCCG AAAAATTCT CCGGTTCTTT ATTCTGAAAG TGAACAGCA	4200
AGAGTTGATA GAGCTGATAG TGATGTTCA AGTCTTGTA ATAGCTCAA AGCTTGTTTA	4260
AAATCTCTTT ATTGTTTAAA TGCATACGAA AAGTAGGGCG ATAAAAATGT TTATCGCTGA	4320
GTTTACG	4327

(2) INFORMATION FOR SEQ ID NO: 118:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3521 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

CTCTGGCCCT GCCACTCCAA CGTTTGTCA GGTGCTTTT TTCATAAAGG AGTTCTTATG

60

843

TTAGATATCA AACGTATTTCG TACAGATTTT GAAGCTGTCG CAGAAAAATT AGCTACACGT	120
GGTGTAGATG CTGCTGTCTT GAATGAAATG AAAGAAATCG ATGCTAAACG TCGTAACATC	180
TTGGTCAAGG TTGAAACTCT CAAAGCAGAA CGTAACACAG TTTCTGCTGA GATTGCCCAA	240
GCTAAGCGCA ACAAGGAAAA TACAGATGAC AAGATTGCTG CCATGCAAAA TCTATCTGCT	300
GAGGTTAAAG CCTTGGATGC TGAATTGGCA GAAATCGATG CTAAATTGAC AGAATTTACA	360
ACGACTCTTC CAAATATCCC AGCTGACAGC GTTCCTGTTG GGGCTGACGA AGACGACAAT	420
GTGGAAGTTC GCCGTTGGGG TACTCCACGC GAGTTTGA CTGAAACCTAA AGCTCACTGG	480
GATCTCGGTG AAGACCTTGG TATCCTTGAC TGGGAACGCG GTGGTAAGGT AACAGGCGCT	540
CGCTTCTCT TCTATAAAGG CCTCGGTGCT CGTTTGAAC GTGCTATCTA CAACTTTATG	600
TTGGATGAAC ATGGAAGA AGGCTATACT GAAGTCATCA CACCTTACAT AGTCAACCAT	660
GATTCTATGT TTGGTACTGG TCAGTATCCA AAATTTAAGG AAGATACTTT TGAATCAGC	720
GATACCAACT TTGTCTTGAT TCCAACGCT GAAGTTCCTC TGACAACTA CTACCGTGAT	780
GAAATCTTAG ACGGCAAAGA TCTTCCAATC TACTTCACTG CCATGAGTCC GTCATTCCGT	840
TCTGAGGCTG GTTCTGCCGG TCGTGATACG CGTGGCTTGA TCCGTTTGCA CCAATTCCAC	900
AAGGTTGAAA TGGTCAAATT TGCCAAACCA GAAGAATCTT ACGAAGAATT GGAAAAATG	960
ACAGCCAACG CTGAAAACAT TCTTCAAAAA CTCAACCTTC CATACCGTGT CGTTGCTCTC	1020
TCTACTGGAG ATATGGGCTT CTCAGCTGCG AAGACTTACG ACTTGGAGT GTGGATTCCA	1080
GCACAAAACA ATTACCGTGA AATCTCAAGC TGTTCAAACA CAGAAGATT CCAAGCCCGT	1140
CGTGCCCAAA TCCGTTACCG TGATGAAGCA GATGGCAAGG TGAAACTCCT TCATACCTTG	1200
AACGGTTCTG GACTTGCAGT TGGACGTACA GTGGCTGCAA TTCTTGAAAA TTACCAAAAT	1260
GAAGATGGTT CTGTGACCAT CCCAGAAGCA CTTGCTCCAT ACATGGGTGG AGCTGAAGTC	1320
ATCAAACCAT AAAAAATAAG GTTTAGCTAT TTCTAGCTAG ACCTTTTTTC GTAACCAAAT	1380
CAGATAAGCA CCTAGTACAA AGAATAAAAT AGTTAGGCAT ATAATGGTTT CAGCCAATAC	1440
CAGGTAATCC AGAAATGGAA GTTTCAAAT TCCCTGAGCC ATCTTGAGCG AGGTCGCTGT	1500
GATAATGGTT GGGAGGTGA GGGCTGAGAA GGCTGGTTGA AAACCTTGTT TTAATAATGTT	1560
GGGCAGACGA GTTAAACAA AGAAAAAGAA GGATTGAGAA GCCAAATCA TGACAATCAA	1620
GACCCAAGTC GGCAGGCTGG TTCCTCCTAC TCGAACTAGA GAAGCCAAGA GTAGAGAGAA	1680
AGGAGCACAG TAGATTCCCT CTTGTCCAAG CAAGGCTAGT GGGAGTGGAT GTTCTTTTAA	1740
ATCGCTATAA ATAAGGGGAT AGAGATAGAA GGTCAAGAGA AAACCAAAAC TCAAGGTCCG	1800

844

ATAGGCAATT TCGATAATAC CTACCAGAGG ATAGGTCAAG GCAGCCACTG CTATCCCCAC	1860
ATAGAGAACC GTCCAGCTTG GAGTGGCATG AACCTCCGC CCTGGACAAG CAACTTGAT	1920
GGTAAACCA GCAATCAAGG TCAATCCAA GAGAAATGAA AACCACCAA TCCCTTGTGC	1980
TACCAAAGGA AGATAAGAGA ATACCGGAAA GACATAGGTC GATAAATCA TCCAGCCAT	2040
AGGAAAGGTT GCCATTCTG ACAAAGAGG GGGCTTGGTC AATTCTTGCT TGGTTCTTT	2100
CCAATTAAAG AGATGCAGAA TTAGAAAGTA AATCCATAAA ACCAAACCAA TCAGACTAAA	2160
AAGATGGGAT AGAACCGCA ACGTATCTAA AATAAGATTT CCAGCTCCTG CCAAACCTAG	2220
CAACAACCT GAAAACTA AGGGGAGTTT TTTCATCCTA ACCTCCAATA ATCATGTTAG	2280
TTTCAGTATA ACATAAAGC GCTTAAATGA GGATTTAAAA AACGAGTCC GCTTATTCA	2340
GACTTCATTT TACTCAGATA TGAATTAGGC ATAAGGTGTC AATTCTGGAT TAATTGGTGT	2400
ATTAGCTAAG TTGTTGGCAT AGTTACAGAG GATTGCTAGG CTGACACCAA AAACCACATC	2460
CAAGGCATTT TGTGAGTGT AGCCAGCTTC TAAAACTCA GACAAGGCTT CATCTCCTAC	2520
ACGACCTTG GTATTGATA CTGCCAAGGT AAAGTTAGCT AGGGTATCCA ATTTAGGATC	2580
TGTTTCAATT GGAGTACGAT TGCGAAGAGC TTGAATCAAG TCATCATCA TCTGGATTG	2640
TTTGATGGAA AAGGCTGTGT GACCTGCGAC ACAGAAGGCA CAACCATTTG TCACGGCTGC	2700
CGTGATTGTC ACCACTTCAC GCTCAACGGG TGTCAGGCTG TTGCGACGGT GGATAGATGA	2760
GACAATTTGG TAGGCTTCTA AACAGTCGG GGCATTGGCC AAGAGACCGA TTAGGTTGGG	2820
AATATAGCCA TTGTTGTCTT TTTCTACTGT TTCAAGAATT TCTTTCACCT CTGCTGGTGC	2880
TGACTCTACT GTATGGATAG TAAATGTTGT CATAAGATAC CTCTTTTCTT ATTATTGACA	2940
CTAATATTAT TGGAAATCT TATAAATCC TGATTCCTAA GTTTATCTAA GATAAAGCTT	3000
TATTCTCTCA TAAGATTTTC GTTGTATAT TAGTTTATCA CACTTCCAAT CACTGTATA	3060
ATATATATTA TATATCAGGC TGATAAAAT TATTTATAGG CAAAAAATC ACACGAGCTG	3120
TGTGATTTCA TTATTTGTCA AAATACTTTT TAGTTTCAGC AATAACGACT GCGACAAGA	3180
CCAAGAGGGC AATCAAGTTT GGCAGAGCCA TCAAGGCGTT AACGATATCT GCGATAATCC	3240
AGACCATATC CAACTCGATA AATCCTCCTA ACAAGACCAT GAGCACAAA ACCACACGGT	3300
AGAGCCAGAT AAAGCGAACC CCAAAGAGGA ACTCAAAACA GCGTTCTCCG TAATAGTTCC	3360
AACCTAGAAT CGTTGTAAAG GCAAAAAGTA CAAGGAAGAT GGTCAAGAGA GCAGGCCCAA	3420
AGTGTGAAAA GTTTGTTGAG AAAGCTGACT GAGTCAAGGC AACCCCATTC AAGTCACCGC	3480
TCCAACTCC AGTTACCAAG ATGGTCAAAC CAGTTAGAGT A	3521

(2) INFORMATION FOR SEQ ID NO: 119:

845

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1968 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

AACCTGGGCA AGCAAGCTAA AAGCAATGGG ACCTGGAATC CTAATGGCAA CTGCCGCTGT	60
TGGAGGTTC CACATTGTAT CCTCAACTCA AGCTGGCGGT TCTTACGGTT GGTCTCTACT	120
TCTCTTGGTC ATCTTAGCCA ATGTCTTTAA ATATCCATTT TTCCGTTTGT GTGCTGAATA	180
CACAGCTGAT ACTGGAAGA CTTTGGTTGA AGGTTATGCC GAAAAAGGAA AACTCTATCT	240
CTGGATTTTC TTTATCCTCA ATGTCTTTTC GGCTATGGTC AACACGGCTG GTGTTGCCAT	300
TCTGTGCTCA GCTATCATCG CCAGTGCCTT CCCAATGATT GGACTTAGCA TTACTCAGTG	360
GTCCCTCATT CTCGTGCAA TCATTTGGGC TATGCTACTC TTTGGAGGCT ACAAACTTTT	420
AGACGGCATG GTCAAATGGA TTATGTCTGC CTTAACCATT GCGACTGTTT TGCAGTTAT	480
CATTGCGCG GTCAAGCATC CAGAATACAG TTCTGATTTT GTCGAGAAGA CACCTTGGCA	540
AATGGCAGCT CTGCCCTTCA TCGTCTCCCT CCTAGGATGG ATGCCGGCTC CTATTGAAAT	600
TTAGCCATC AATCACTTT GGTGAGTGA AAAGAGAAAG ACCGTCAACT TTAACACAGA	660
AGACGCTCTG TTTGACTTTA AACTGTTA TATTGGAACA GCTATCCTAG CCGTCTTCTT	720
TGTGGCACTG GGAGCACTGA TTCAGTATCC TACAGGGCAG GCGGTGAAG CTGCTTCAGC	780
CAAATACATC TCTCAATTCG TGGGCATGTA TGCTCTGTT CTTGGCGAAT GGTCCCGTTA	840
CTTGATTACC TTTATTGCCT TCCTCTGTAT CTTTGAACA GTTATAACTG TTATCGATGG	900
CTATTCTCGC GTTAATCAGG AATCTCTCCG ACTGCTAATC AGTCAAAAAG AGGACAATCG	960
TAAATCTTTG AACATCTGGA TGACCATCAC TGCTATCATC GGTATCGTCA TTATCAAGTT	1020
CTTCGCTGGT CAGGTTTCAA CCATGCTCCG CTTTGCCATG ATTGGCTCTT TCCTGACAAC	1080
ACCTTTCTTT GCTCTTTTGA ATTACGCCTT GGTAAACGCT GAAAAACAAA ATCTTCCTTC	1140
TTGGCTCAAA CACCTTGCCA TTGCGGGATT GATTTTCCTC TTTGCTTCGC CATCTTCTTT	1200
ATCTACGCAC TCGCAATCGG AAAAGCAGGG TAAGGGACAA GCGCGAGATG AAGATAAGGT	1260
TTCATTTCAA GAGAAAATTC AGCAAATATT TCTATGATAA AAAGCATAAG AACAAGGTTT	1320
TGAAGACCTG AACTTATGCT TTTTACGTT CTTAAAGACT GTTTATACTC AAAAAACAGT	1380
TGAACAACTT CAACCACCTC TTATAAGAAC TTTATACTAT TCGAGAATCT CTTCAAACCA	1440

846

CGTCAGCTCT ATCTGCAACC TCAAAGCTGT GCTTTGAGCA ACCTGCGACT AGCTTCCTAG	1500
TTTGCTCTTT GATTTTCATT GAGTATTAAT TCTCCTTTTC CAACTCATAC AAATCTGCGA	1560
TAATAGCTGC GACATGTTTG ATATCTTCCA GCATGCCTCG CATTTCAAAG TCAGCCAATA	1620
CAGGAAGCC AAAGCGTTGA CTGTATTGCT TGGCTGTTAG GCAGTATTGG TTATTAAAGT	1680
TACGATTTC TGACCCAACC ACACCAAAAC ACTTACTAGC ATTGTTACCA TAGGCAATAA	1740
AATCTCCAC CGGTGTCGTC AAAATCTCAA CATCTCCGTT ATCCACGCCA TTCCACCTT	1800
CGAGATAGGT CGGCAAAAA GCGACATAGG GATGGTCCAT TTCATAGAAA TTTTGCCTT	1860
CCTTGACCAA ATCCTTGATA TGAATCTTTT GAACCTCAAT CCCTTTGTAC TGGGACAAGA	1920
GATAGTCTTT CAAGCGCGTC AAAAACTTT CAGTGTGCC ACTCAAGG	1968

(2) INFORMATION FOR SEQ ID NO: 120:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7172 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

CCGCATTTT TACTACTAGA CTCGAGACAT CTTTGAGTG GCTCTGCTC TCTGGTTTAA	60
TTTCTTCTCT TGCTCAAGGA CTCCTGCTAT TTCTCTTGGT CGTCCGACTC AAACATCAAT	120
TCGCTGAGAT TTATCCTCAA ATCAATAAAA AGATTGCTT CTAATATTTA GGGGTTCTCA	180
CCATTGATTT TCTATTTTGT GTTCTCTTAG CCTTCATAG TTCTCAGCGT TTTTCATCTC	240
TTATGCCAAT CATCACTGCT TGCCATTCTA CTTTTTATTA TATGACAGCT GACTACCTAA	300
GAGAAACTA TCCAGACTTT TACGACAAAC ACATCTCTTT ATGGGAGTGT CTCTAAAGAA	360
AAGGAGGTTT TAGCATGAAA AAAATCATCT TCATCAAAAC CATTCAATC CTTGTCATTG	420
ATGGAATCAT GCTGGCATTT TTGACATTTA AAAGGGGGCT TACTTGGGAC TGGATTTTGA	480
TTTATAGCGG TTGGCTCATT TTCTTTTCAT CTGTGCTATT GACCTATCTT TCAAACCAAC	540
TTTGTGACCA CTTTAGTTAA CTCTATTCCC AGATTAGACC GAGATTCTGG CGTTTTCCTT	600
TACAAATCTT CCTATGGGAT AGCCTGATGA TTCTCTCCTT GGTGTCTTTA AGTGATATTC	660
CACCTTTCCT TCAGGGAAC CTCCTCATCC TAGGACATCT CATCCCTTCC TATCGCATCT	720
GCCAAAGCCT GAAAGAGAC TTCCCCAAG CATATCAAGA ACCGATTCTT TTTTGAGTA	780
TTTTATGATA GATGAGAAAG ACCAAGCCGA CTGGGCTTGG TCTTTCTTAT CTCTTTTGTAG	840
TATCTAGGAT AATGGTAACA GGTCCATTAT TAACCAGCTC AACCTGCATA TCTGCTCCAA	900

847

AGATGCCTGT CTGAACGGGC ACTTCTTGCG CTAATTTTGTG ATTGAAAGCA TCATAGAAGT	960
CTGATGCCAT ATCAGGTTTA GCTGCCCCTG TAAAGgCTGG ACGATTGCCT CTCTTAGTAT	1020
CCGCAAAGAG GGTAAACTGA GAAATAGAGA GGATTTCCTC TTCAATATCT TTGACAGACA	1080
GGTTCATCTT GCCTTCTGCG TCTGAAAAA TCCGCATATT GACCAGTTTT CTCACAGCAT	1140
AGTCCAAATC TTCCTCTTGG TCCTCTGGTC CAACACCAAC CAGCAATAAA AGTCCCTGAT	1200
TGATTTTTC CTGAATCTGG CCTTCTATAC TCACCTGGGC TTTTAAACC CGTTGGATAA	1260
TGATTTTCAT AATAGCCTTT CTAGTAAGAG CTAGGACAAC TAGCCGTTGG TCCGTTTGAC	1320
AGAGTAAACT TCTGGCACAC TCTTAATTTT ATCGACAACC GTGGTCAGTG TAGAGAGGTT	1380
GGCAATACCG AAGgACACAT GGATATTAGC AAACCTCATA TCCTTGGTTG GTTGGGCATT	1440
GACCGTTGAA ATATTCCTGG TTGTATTGA AAGAACTTGC AGTACATCGT TCAACAGTCC	1500
TGTACGGTTG AGACCGTAGA TATCGATATG GGCCATATAC TCCTTATTTG AGCTAGGGTA	1560
CTGGTCTTCC CATTCACAT CAAGGAGACG TTGCTCGTAG TTTTCTTGGG CACGAGGTT	1620
CATACAGTCC ACACGGTGAA TAGCCACACC ACGACCTTG GTAATGTAGC CAACAATATC	1680
GTCACCAGGC ACGGGGTAC AACACTTAGC AATCCGCACT AGGAGACCAG AAGCACCTTC	1740
AATAACCACT CCCCCCTCAT GCTTGACCTT GAGGGTTTCT TATTTTCAA CCTTGACCTC	1800
GCCACCTTTG ACAAGCTCCT CTGCCTCAGC TTTGGCCTTG GCACGCTCTT CCTCACGGCG	1860
TTCTTTTCA GTCAGACGGT TAAAGACGGT AATCGCACCG ATTTCCCCAA AACCAATGGC	1920
CGCAAAGAGG GAGTCTTCTG TCTTGTAAC TGTCTTTTGC AGAACTTGAT CCATGTGGCG	1980
CTTGTCATA AATTATTTG CCACATAGCC ATTTCTTTG AACTGAGCCA TCAGCATCTC	2040
ACGACCTTG TTGACAGACA ATTCCTTATC TTGGTTTTTA AAGAACTGGC GAATCTTATT	2100
GCGCGCCTTG CTAGTCTTGA CCATATTGAG CCAGTCACGG CTAGGTCCAA AGGAGTTCGG	2160
GTTGGCGATA ATTTCAACCT GATCCCCTGT CTTTAACTTG GTTGTCAGTG GAACCATGCG	2220
GCCATTGACC TTGGCACCAG TTGCTTTTTC ACCGACCTTG GTATGGATTT CGTAGGCAAA	2280
ATCAATCGGT CCTGAATCTT TGGGAAGGGA ACGGACAGCT CCATCTGGGG TAAAAACGTA	2340
AATCTCTCA GCCAAATAGT TTTCTTAAC AGAGTCCACA AATCCTTAG CATCATCAGC	2400
CTGGTCTTGG AGCTCCATCA TCTCCTTGAT CCAGTTCATT CCAATAGCTG ATTCCTTGCT	2460
GTTAACTTGC CCGTTTATAC CTTTCTTATA AGCCCAGTGA GCCGCAACCC CGTACTCAGC	2520
CACCTCGTGC ATTTCTTGG TTGGAATCTG GAATTCAATC GGCCCTTTTG GTCCATAAAC	2580
AGTCGTATGG ATAGACTGAT AACCATTGGC CTTGCGGTTG GCGATATAGT CTTTGAAGCG	2640

848

ACCTGGCATC GGTTCCTCAA	ATTCATGCAC GTAACCAAGC	ATGGCATAAA CATCACTTTG	2700
GGTATCTAAA ATACAACGAA	TAGCAATCAG ATCATAGATT	TCCTCAAACC GTTTCTCTT	2760
GTCCTGCATT TTGCGGAAAA	TTGAGTAAAT ATGCTTGGGA	CGACCATAAA TCTTCCCTTT	2820
CAAGTGACGT TCTGTCGTAT	ACTCCTCTAA TTTTGTGACT	ACCTCATCCA CCAAGGCCTC	2880
ACGCTCCCTG CGCTTTTCCT	TCATCATATG GGTAATCTTG	TAAAACTCCG TTGGATTGAG	2940
ATAACGGAAG GACAAGTCTT	CTAATTCCCA TTTGACACTG	GAAATCCCCA AACGATGGGC	3000
AAGCGGGGCA TAGATTTCCT	TGGTTCTTTT GGAAATACGC	TCCTGCTTGT CTTTTCGAAG	3060
ATGTTTCAGG GTCCGCATAT	TGTGCAAGCG GTCAGACAGT	TTGACCAAAA TAACGCGGAT	3120
GTCCTCAGAC ATGGCCATGA	GCATCTTGCG ATGATTTTCC	GCTAATTGCT CCTCGATCGA	3180
TTGTACTCG ACCTTGCCAA	GCTTGGTAAC TCCGTCAACA	ATCATCGCA CATCAGGACC	3240
AAACTCTCTT TCCAAATCGT	CCAAAGTCGC ATCTGTATCT	TCCACCACAT CATGCAAGAA	3300
TCCACAAGCT ACTGTTACAG	CATCCAGCTT TAGCTTAGCT	AAAATACCTG CCACTTGGAT	3360
AGGGTGAATG ATATAAGGCT	CGCCTGATTT GCGATATTGA	CCAAGTGGC ATCAACAGC	3420
ATAGACCAAG GCCTTATGGA	CAAAATGAAC ATCCTCTTCC	GTAAATATT CTTTGGTTAA	3480
AGCGACAAC TCTTCGCCTG	TTAAATTCAC TTCTTTCGGC	ATCTCTACTC TCCAATCTTT	3540
CCTACCATT TATCACTTTT	TTAAGAATAT GAAACTAGA	TTGGAACAGA ATAAGAAAAA	3600
AATAATTCAA AATTGCTTGA	TAATCTGAA TTATTGGTCC	GTAATATACT ACGAAGTTAG	3660
ATTTTAACT TAGGTGATAG	AAGGAGAGAT AGAAGAACGG	AAACCATATT GTAACCCAAA	3720
GACTTTCTGA CTTCCTCAAT	TCCATTGAAG ATACGAAAGA	TAAACGGTGG AACTCGTATC	3780
ACATACACTG GTACCTTGAC	TGGATTTTGG AATTAATACT	AAATGAAAAT CAAAGAGCAA	3840
ACTAGGAAAC TAGCCGCAGG	TTACTCAAAG CACCGCTTTG	AGGTTGCAGA TAAAGTTGAC	3900
GCGGTTTGAA GAGATTTTGA	AAGAGTATAA AAATCCTCAA	GATACTTTCT TCTATCCTTT	3960
AGTTTATAAG GAGAATACCT	ATGAAAAAAA CTGCTATTTC	TATCTTTGCT CTCCTAATGT	4020
TAGGAGTTTG CTGCCTGTC	CTATTCAGCC AGCAAAGCTA	TAAAAACAG TCGTTCAATA	4080
CTATGCTAAC GACCAGAACC	TGCCCAGTAG GATAACTTAT	AGTGAATATA GCGACAAATG	4140
AGAAGCCAAC TACGGTAGCA	CTCTAAACAT CACGTCTATC	AAACAAGCTA ATGACGGAGT	4200
TTATGCAACC TATGAAGGC	AATTGACACC TTTCCAATAT	TGATAAATTG ATAACCAGCC	4260
TGTCTTCATC TAGTCATGCT	GGTTTTTAAG TTCATTTTAA	ATCCTTACCT ATTCTCCCTA	4320
ACTGTGCTAT ACTTAATTTA	TACTCAATGA AAATCAAAGA	GCAAACTAGA AAGCTAGCCG	4380
CAGGCTGTTT AAAGCACTGC	TTTGAGGTTG CAGATAAAGT	TGACGCGGTT TGAAGAGATT	4440

849

TTCGAAGAGT	ATTAGTACAT	TCTTTGAGAT	TGGAGCTAGT	ATGAAAATCC	ATAAAACCGT	4500
GAATCCTGTT	GCCTATGAAA	ATACCTATTA	TCTAGAAGGC	GAAAAGCACC	TCATCGTCGT	4560
CGATCCTGGT	AGTCATTGGG	AAGCCATTCC	TCAGACAATC	GAGAAGATCA	ACAAACCGAT	4620
CTGTGCTATT	CTCTTGACCC	ACGCCCATTA	TGACCATATC	ATGAGTCTGG	ACTTGGTTCCG	4680
CGAGACGTTT	GGCAATCCTC	CTGTCTATAT	CGCAGAGAGC	GAAGCCAGCT	GGCTCTACAC	4740
TCCTGTGCAT	AATCTCTCCG	GTCTCCCTCG	CCACGATGAT	ATGGCAGATG	TGGTCACAAA	4800
ACCTGCAGAA	CACACCTTTG	TCTTTCACGA	AGAATACCAA	CTAGAGGAAT	TTCGTTTAA	4860
GGTTCTACCG	ACCCAGGGC	ACTCTATCGG	TGGTGTTC	CTAGTCTTTC	CTGATGCTCA	4920
TCTAGTCTTG	ACGGGAGATG	CTCTATTCCG	CGAAACTATC	GGACGGACCG	ACCTTCCGAC	4980
TGGTAGCATG	GAGCAACTCC	TTCATAGTAT	CCAGACCCAA	CTCTTCACCC	TACCAAATA	5040
CGATGTCTAT	CCAGGACATG	GTCCAGCTAC	TACTATCGCT	CACGAAAAGG	CCTTCAATCC	5100
CTTTTCTAG	CAAGATGATG	ACAATCGAAA	TTTAAGTAAA	CTATCCAGCA	AATCTTTCTA	5160
TTACAAAAGG	CATCCTATCA	AGGTTTTCAC	ACATGATTGG	ATGCCTTTT	TCTGATGACT	5220
AGATTTTTCG	CATTACCAAA	TAATCACGCG	CTCCTCTGGT	GAACGCCACA	TTCCGTCTCC	5280
TTCTTTGACA	TCATAGGTTG	TAAAGAAATC	GTCGAAGTTT	GGTACTTGCA	CATTGACACG	5340
GAGTTTGGCT	GGTGCGTGCA	CATCGACGCT	AGCCAAAAGT	TTCATAAATT	CTGGTCGACC	5400
TTTCATGCCG	CAGATGCGAC	CGAAGTTGTA	GAAGAAGTCT	TCTGCTGAGA	AGTCTGCTTC	5460
TCTCTTAGCT	GCTTCAAGCG	CTGCTGCGAT	TCCTCCCAAG	TCAGCCACGT	TTTCTGATAC	5520
AGTCAATTTA	CCGTTAATGG	TTGCTCCATA	AGAATCCTGT	CCATCAAATT	GGTCAATGAC	5580
TTTTTGTGTT	TTCTCCTTGA	AGGCAGCATA	GTCGCTCTCT	GTCCACCAAT	CCTTGAGGCT	5640
ACCATTTTTCG	TCAAAGGAAG	CCCCGTTAGT	ATCAAAGGCG	TGGGAAATTT	CATGGGCAAT	5700
CACTGCCCCA	ATACCACCGT	AGTTAGCAGA	AGATGACTGA	TGCAAGTCAT	AGAAAGGCGC	5760
CTGTAAAATG	GCCGCTGGAA	AGACAATCAG	GTTCTTCTGA	GGATTGTAGT	AGGCATTGAC	5820
CATATGAGCA	GGCATGCCCC	ATTCTTTATA	ATCTACAGGC	TGGTTCCACT	TACTCCAAT	5880
GTGCTTGATT	TCCACACGCG	CAAAGGCTAG	AGCATTCTCA	AAAAGACTGG	CAGTTTCATT	5940
CACTACCTTA	TCCTTGTAAC	GTGCAGGCAA	TTCTTCTGGA	TAGCCAATAT	AAGGTTTGAT	6000
CACATTGAGC	TTCACGATAG	CCTGTTTACA	GGTTTCTGGA	GTGAGCCAGT	CATTCTTAAG	6060
CAGACGCTCC	TTATAAACAT	CAATCATGGT	TGCCACTTTT	TTCTCCACAT	CCGCCTTGGC	6120
TTCTGGAGAG	AACCTTCTAC	GGGCGTACCA	AAGACCCAGG	GCTTGCTTGA	AAGGTTCTTG	6180

850

TGCTAGATGA TAAGCTGCTT TGACCTTATC TTTTGCCTCT GGAAGTCCAG AAAGGGCACG	6240
GCTGTAGGCA CCAGACAAAA CACGGATATC CTCTGTAAAA TAGCTGTTG AAAGATTGAC	6300
AACACTCAAA ATCAAGGTTG CTTTAAGGAG AGACCAGGCT TCCTCACTGT AGAATTGCTC	6360
TGCTGCTTGC CAGAAACGTT CCTCGTCTAC AATAACCTTG TCTGGTAATT GCCCAATAAC	6420
TGCTTTGAAG AAGTCATCCA AAGGTAGGGC AGGCGCGAAT TTCTTGAAAT CTTCTAAGA	6480
ATATGGATGA TAGAGTTTAG CATATTCTGA ACTTTCTTCA TTAGAGAGCA CCACTGCCGC	6540
AACTCGGCGG TCCAATTCAA GTCTTTTTC TAGCAAGTCT TCAATTTCTT CATCAGAGAA	6600
ATCATAAGCC TTGAGGAGAT TTGCGTGCT TTCTTTCCAA AGAGTCAAGA GCTCTCGCG	6660
CTGAGGATGT TCTTCTGCAT AGTAGGTCGT ATCTGGCAAG ATTGTGCTTG GAGCGCTAGC	6720
CCATAGAACA TTGATTCTAG CATCCATAAA GTCTGGCGAT ACACCAAAAG GAAGGAAGTT	6780
TGGTTTTCCT GCAAGCTCAA ACTCTGCTAG TTTAGCTGTA AAATCCGCAA AAGTCTCAA	6840
TTCTTGGAAT TCTTTAAGGA GTGGTAAGAC AGGTGTGATA CCGTCAGCTT CTCTCTTGTC	6900
AAAATCACGA ACTAGGCGGT GGTATTTGAC AAAGTTTCC AAGATAGCAT CCTCAGGCAC	6960
TTCTTCACCT GCTAACCACT TGTCTGTTGT CGCCAGCATC AGGTCTTCAA TTTCTGGTC	7020
TAAATCAACA AAACCTCCTG TTTGAGACTT ATCTGCTGGG ATTTCACTG TCTGTTGCCA	7080
TTCTCCATTG ATAGCATCAT AAAAATCATC TTGATAACGT GTCATCTTGT TCTCGCTTTC	7140
ATTTGTATTT GCATTTATCT TAACAAAAAT CG	7172

(2) INFORMATION FOR SEQ ID NO: 121:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4518 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

CGGGAAGTTA TGCGATCTAG ACTTCGTTCC TGTACAGCTA CTTTCTCAGG TGGTCTTGTT	60
GTTTGTATGA GTTTGTTTAG AGAGGATCTT TCTATGCTT TCTTTCTTAT TTTTGTTTTA	120
TATGCTTTTC TGATTTCTTA TCTAATTTAT GGTATTTC A GACTAAAAAG GAAATACCGA	180
GTAGATGAAT AGCAAGGTTT TAGGTCTTCA GATTGATTTT TAGCACTCTT GATAAAAGAG	240
TGCTAATTTT TTGAGTTTGT GTCTTGACAT TCTCTTCTAA GGGTGTATAA TAGAATCATG	300
AGTTAGCACT TGGATGCATT GAGTGCTAAT TGATCAGACA GAGAGGAGTG ATGAGATGGT	360
TACAGAGCGT CAGCAGGATA TTTTAAATCT GATTATTGAC ATCTTTACCA AAACGCACGA	420

851

ACCTGTCGGA TCAAAAGCCT TGCAAGAGTC TATTAACCTCT AGCAGTGCAA CCATTCGTAA	480
TGACATGGCG GAACTAGAAA AACAAGGGTT GCTTGAGAAG GCTCATACTT CAAGTGGTCG	540
GATGCCAAGT GTTGCTGGTT TTCAGTACTA TGTGAAACAC TCACTGGATT TTGACCGGCT	600
GGCTGAAAAT GAGGTATATG AGATTGTCAA AGCCTTTGAT CAGGAATTCT TCAAATTGGA	660
GGATATTCTG CAAGAGGCTG CTAACCTACT AACAGACCTG AGTGGCTGTA CGGTAGTGGC	720
ACTGGATGTT GAGCCGAGCA GGCAACGTTT GACAGCCTTT GATATCGTTG TTTTGGGGCA	780
ACATACAGCC TTGGCGGTAT TTACCCTAGA CGAGTCGCGA ACGGTTACTA GTCAGTTTCT	840
GATTCCAAGG AACTTCTTGC AGGAGGATTT GCTGAAACTG AAGAGCATCA TTCAGGAACG	900
TTTCTCGGT CACACCGTTT TAGATATTCA CTACAAGATT CGGACGGAGA TTCCGCAGAT	960
TATCCAGCGT TACTTTACAA CAACGGATAA TGTATCGAT CTCTTTGAAC ACATCTTTAA	1020
GGAAATGTTT AACGAAAACA TTGTGATGGC GGGCAAGGTC CATCTCTTGA ATTTTGCCAA	1080
TCTAGCAGCC TATCAGTTCT TTGACCAACC GCAAAGGTG GCCTTGGAGA TTCTGAGGG	1140
GTTGCGTGAG GATCAGATGC AAAATGTTTCG TGTTCAGAC GGTCAAGAGT CCTGTTTAGC	1200
TGACCTAGCG GTAATCAGTA GTAAGTTCTT CATTCCTTAT CGGGGAGTTG GAATTCTAGC	1260
CATTATCGGT CCAGTTAATC TGGATTACCA ACAGCTAATC AATCAAGTCA ATGTGGTCAA	1320
CCGTGTTTGG ACCATGAAGT TGACAGATTT TTACCGCTAC CTCAGCAGTA ATCATTACGA	1380
AGTACATTAA GATTGAAATC ATTAAAGGAG GCGAACATGG CCCAAGATAT AAAAAATGAA	1440
GAAGTAGAAG AAGTTCAAGA AGAGGAAGTT GTGAAAACAG CTGAAGAAAC AACTCCTGAA	1500
AAGTCTGAGT TGGACTTGGC AAATGAACGT GCAGATGAGT TCGAAAACAA ATATCTTCGC	1560
GCTCATGCAG AAATGCAAAA TATCCAACGC CGTGCCAATG AAGAACGTCA AAACCTGCAA	1620
CGTTATCGTA GCCAGGACTT GGCAAAAGCA ATCTTACCAT CTCTTGACAA CCTTGAGCGT	1680
GCACTTGCAAG TTGAAGGTTT GACAGATGAT GTGAAGAAGG GCTTGGGGAT GGTGCAAGAA	1740
AGCTTGATTC ACGCTTTGAA AGAAGAAGGA ATTGAAGAAA TCGCAGCAGA TGGCGAATTT	1800
GACCATAACT ACCATATGGC CATCCAACT CTCCCAGCAG ACGATGAACA CCCAGTAGAT	1860
ACCATCGCTC AAGTCTTTCA AAAAGGCTAC AAACCTCATG ACCGCATCCT ACGCCCAGCA	1920
ATGGTAGTGG TGTATAACTA AGATATAAAG CCCGTAAAAA GCTCGCAGTA AAAATAGGAG	1980
ATTGACGAAG TGTTCGATGA ACACAAGAAA ATCTATCTTT TTTACTCAGA GCTTAGGGCG	2040
TGTTTCGATTC GGCAATTCTG ACGGTAGCTA AAGCAACTCG TCAGAAAACG GCAATCGCTA	2100
TGGCGTTTGC CTAGCTTCCT TACTAACTCG TCGTCGAAAT AAAATCGATT TCGACTCCTC	2160

852

GTGTCGCAAT TTACATAATA GAAAACTTGT CCGAAACGAC AATAAACTAT GAAGAAAGAT	2220
AAAATATGTT TGGCTTTGTA ATAGTGAGCG AAGCGAACCA AACACGATAC TCTTCGCCGT	2280
GGCGCTATTT GCGCAAATTT TGAGACCTTA GGCTCAAAGT TTAGTCAAAG AGATTGACGA	2340
AGTCAAGCTC TGACGGCGTC GCCACTGTCT CCACTTAAGA AGAGTATCAA AAAGAAAAAT	2400
AGAAAAATTAA CTAACAAGGA GAAAAACACA TGTCTAAAAT TATCGGTATT GACTTAGGTA	2460
CAACAACTC AGCAGTTGCA GTTCTTGAAG GAACTGAAAG CAAAATCATC GCAAACCCAG	2520
AAGGAAACCG CACAACCTCA TCTGTAGTCT CATTCAAAA CGGAGAAATC ATCGTTGGTG	2580
ATGCTGCAAA ACGTCAAGCA GTTACAAACC CAGATACAGT TATCTCTATC AAATCTAAGA	2640
TGGGAACCTC TGAAAAAGTT TCTGCAAATG GAAAAGAATA CACTCCACAA GAAATCTCAG	2700
CTATGATCCT TCAATACCTG AAAGGCTACG CTGAAGACTA CCTTGGTGAG AAAGTAACCA	2760
AAGCTGTTAT CACAGTTCCG GCTTACTTCA ACGACGCTCA ACGTCAAGCA ACAAAGACG	2820
CTGGTAAAT TGCTGGTCTT GAAGTAGAAC GTATTGTTAA CGAACCAACT GCAGCAGCTC	2880
TTGCTTATGG TTTGACAAG ACTGACAAAG AAGAAAAAT CTTGGTATTT GACCTTGGTG	2940
GTGGTACATT CGACGTCTCT ATCCTTGAAT TGGGTGACGG TGTCTTCGAC GTATTGTCAA	3000
CTGCAGGGGA CAACAACTT GGTGGTGACG ACTTTGACCA AAAATCATT GACCACTTGG	3060
TAGCAGAATT CAAGAAAGAA AACGGTATCG ACTTGTCTAC TGACAAGATG GCAATGCAAC	3120
GTTTGAAAGA TGCGGCTGAA AAAGCGAAGA AAGACCTTTC TGGTGTAAT TCAACACAAA	3180
TCAGCTTGCC ATTTATCACT GCAGGTGAGG CTGGACCTCT TCACTTGGA ATGACTTTGA	3240
CTCGTGCGAA ATTTGACGAT TTGACTCGTG ACCTTGTGA ACGTACAAAA GTTCCAGTTC	3300
GTCAAGCCCT TTCAGATGCA GGTTTGAGCT TGTCAGAAAT CGACGAAGTT ATCCTTGTTG	3360
GTGGTTCAAC TCGTATCCCT GCCGTTGTTG AAGCTGTAA AGCTGAACT GGTAAAGAAC	3420
CAACAAATC AGTAAACCTT GATGAAGTAG TTGCTATGGG TGCGGCTATC CAAGGTGGTG	3480
TGATTACTGG TGATGTCAAG GACGTTGTCC TTCTTGATGT AACGCCATTG TCACTTGGTA	3540
TCGAAACAAT GGGTGGAGTA TTTACAAAAC TTATCGATCG CAACACTACA ATCCCAACAT	3600
CTAAATCACA AGTCTTCTCA ACAGCAGCAG ACAACCAACC AGCCGTTGAT ATCCACGTTT	3660
TTCAAGGTGA ACGCCCAATG GCAGCAGATA ACAAGACTCT TGGACGCTTC CAATTGACTG	3720
ATATCCAGC TGCACCTCGT GGAATTCCTC AAATCGAAGT AACATTTGAC ATCGACAAGA	3780
ACGGTATCGT GTCTGTTAAG GCCAAAGACC TTGGAATCA AAAAGAACA ACTATTGTCA	3840
TCCAATCGAA CTCAGGTTTG ACTGACGAAG AAATCGACCG CATGATGAAA GATGCAGAAG	3900
CAAACGCTGA AGCCGATAAG AACGTAAAG AAGAAGTAGA CCTTCGTAAT GAAGTAGACC	3960

853

AAGCAATCTT TGCAGCTGAA AAGACAATCA AGGAAACTGA AGGTAAAGGC TTCGACGCAG	4020
AACGTGACGC TGCCCAAGCT GCCCTTGATG ACCTTAAGAA AGCTCAAGAA GACAACAACT	4080
TGGACGACAT GAAAACAAAA CTTGAAGCAT TGAACGAAAA AGCTCAAGGA CTTGCTGTTA	4140
AACTCTACGA ACAAGCCGCA GCAGCGCAAC AAGCTCAAGA AGGAGCAGAA GGCGCACAAG	4200
CAACAGGGAA CGCAGGCGAT GACGTCGTAG ACGGAGAGTT TACGGAAAAG TAAGATGAGT	4260
GTATTGGATG AAGAGTATCT AAAAAATACA CGAAAAGTTT ATAATGATTT TTGTAATCAA	4320
GCTGATAACT ATAGAACATC AAAAGATTTT ATTGATAATA TTCCAATAGA ATATTTAGCT	4380
AGATATAGAG AATTATATTA GCTGAACATG ATAGTTGTAT CAAAAATGAT GAAGCGGTAA	4440
GGAATTTTGT TACCTCAGTA TTGTTGTCTG CATTTGTATC GGCGATGGTA CCGTATCTGA	4500
CGAACGTTCA GCTTATAT	4518

(2) INFORMATION FOR SEQ ID NO: 122:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8145 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

TGCTATTTTC GATTCCCTTG GCGCTTTTGA TTGCTTTTGC CTGCAAGTC CATTGGAAGC	60
CCCTCCATTA TCTGATTAACT ATTTACATCT GGGTTATGCG AGGAACCCCC TTACTCTTGC	120
AACTGATTTT TATCTATTAT GTGCTCCCAA GTATTGGGAT TCGTTTAGAC CGCCTTCCTG	180
CAGCTATTAT TGCCCTTTGT CTCAACTATG CAGCTTACTT TGCAGAAAT TTCCGTGGGG	240
GAATTGACAC TATTCCAAGA GGACAGTATG AGGCCGCCAA GGTCTTGAAG TTTAGCCCTT	300
TTGACAGAGT GCGCTATATT ATCTTGCCCC AAGTGACCAA GATCGTTCTT CCTAGTGTCT	360
TTAATGAAGT TATGAGTTTG GTCAAGGATA CTTCTTTGGT CTATGCTCTC GGAATTTTCA	420
ACCTTATCTT GGCTAGTCGA ACAGCTGCTA ACCGCGATGC TAGTCTAGTT CCTATGTTCT	480
TGGCAGGAGC CATTTATTTG ATTTTGATTG GGATTGTGAC AATTATTTCC AAAAAAGTTG	540
AGAAGAAGTA TAGTTATTAT AGATAGGAGG CTGCCATGTT AGAATTACGA AATATCAATA	600
AAGTCTTTGG AGACAAACAA ATCCTGTCTA ATTTCACTCT AAGTATTCCT GAAAAGCAAA	660
TCCTGGCTAT CGTTGGACCT TCTGGTGGAG GTAAGACAAC TCTTTTACGT ATGCTTGCAG	720
GTCTTGAAAC CATTGATTCA GGGCAAATCT TTTATAATGG ACAACCTTTA GAGCTGGATG	780

854			
AATTGCAGAA GCGCAATCTA CTGGGATTG TCTTCCAAGA TTTTCAACTA TTTCCTCATC	840		
TATCAGTTCT GGAAAATTG ACTTTATCGC CTGTGAAGAC CATGGGAATG AAGCAGGAAG	900		
AGGCTGAGAA GAAGGCGAGT GGAAGTTGG AACAGTTAGG ACTAGGAGGA CACGCAGAGG	960		
CCTATCCTTT CTCACATCTT GGTGGGCAAA AGCAGCGGGT GGCTTTGGCG CGTGCTATGA	1020		
TGATTGACCC AGAAATCATT GGCTACGATG AACCAACTTC TGCCCTGGAT CCAGAATTAC	1080		
GTTTGGAAGT GGAGAAGCTA ATCTTGCAAA ATAGGGAAGT TGGGATGACC CAGATTGTGG	1140		
TTACCCATGA TTTGCAGTTT GCTGAAAATA TCGCAGATGT ATTATTGAAA GTAGAACCCTA	1200		
AATAGGAGGA AAAATGGATG AAAAAATGGA TGCTTGTATT AGTCAGTCTG ATGACTGCTT	1260		
TGTTCTTAGT AGCTTGTGGG AAAAATTCTA GCGAACTAG TGGAGATAAT TGGTCAAAGT	1320		
ACCACTCTAA CAAGTCTATT ACTATTGGAT TTGATAGTAC TTTTGTTCCTA ATGGGATTG	1380		
CTCAGAAAGA TGTTCTTAT GCAGGATTG ATATTGATTT AGCTACAGCT GTTTTGTAAA	1440		
AATACGGAAT CACGGTAAAT TGGCAACCGA TTGATTGGGA TTTGAAAGAA GCTGAATTGA	1500		
CAAAAGGAAC GATTGATCTG ATTTGGAATG GCTATTCCGC TACAGACGAA CGCCGTGAAA	1560		
AGGTGGCTTT CAGTAACTCA TATATGAAGA ATGAGCAGGT ATTTGGTTACG AAGAAATCAT	1620		
CTGGTATCAC GACTGCAAAG GATATGACTG GAAAGACATT AGGAGCTCAA GCTGGTTCAT	1680		
CTGGTTATGC GGACTTTGAA GCAATCCAG AAATTTTGAA GAATATTGTC GCTAATAAGG	1740		
AAGCGAATCA ATACCAAACC TTTAATGAAG CCTTGATTGA TTTGAAAAAC GATCGAATTG	1800		
ATGGTCTATT GATTGACCGT GTCTATGCAA ACTATTATTT AGAAGCAGAA GGTGTTTAA	1860		
ACGATTATAA TGTCTTTACA GTTGGACTAG AACAGAAGC TTTTGCAGTT GGAGCCCGTA	1920		
AGGAAGATAC AAAGTTGGT AAGAAGATAA ATGAAGCTTT TTCTAGTCTT TACAAGGACG	1980		
GCAAGTTCCA AGAAATCAGC CAAAAATGGT TTGGAGAAGA TGTAGCAACC AAAGAAGTAA	2040		
AAGAAGGACA GTAAGATAAA ATAGTGGCTG AAAGTGCCTT TTGATTAGCA AACGCTAGTT	2100		
TTTTTTGTAA TCTAGGAAAA CGATAATAGC GATTGAATAT GGATAATTGA ATATGGAATA	2160		
GCCCACTGTG ATTTCTAAAA CATTTGTAAA AATTGATTG ACTTCAAAA TTAAAATGTT	2220		
CTGTAATGAA ATACTGATGT AACTGTTTGA GGAACAATAA AACGCATAAT ATCAAGGTTT	2280		
TTGCACCTTA CATTATGCGT TTTTGTGATT TTAAGACTTG TTAGCTGATT TTTTACAATC	2340		
CTGCGAAATC TTTGATTCTT TGTGCTGACA TTGAAGAGTC GCAACGGACG TTGATTGTC	2400		
CATCTGTAAT ATGAACAAAA CCTGGTACAG TTGGGATTCC ATAGCGTGAG CGGAATGCTT	2460		
GCAAAATCATT GAGTTGGCTT GGTCTTTCAC TATTGATGAA GTAAATGTGA GCTTTGGTTT	2520		
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855

CGATAAGAA GGTTCAGTT TCTTTTAT CAAGAGCTTC TTGCGCACGC ACAACTGTAG	2640
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AGGTGGTTG GTCTCATCTT TTATAGGTCT TTATTTTACA AATGCATTGA TTTCTGCTTC	2820
GATGTTAGCA ATCTTAGCTT GTGATTCTTC GTTGGTTTCC CCTACAACG CAATGTAGAA	2880
CTTGATTTTT GGTTCGTAC CTGAAGGGCG AACGGCAATC CATGAACCGT CAGCAAGTGT	2940
GTATTTCAAC ACATCACTTG GAGGAGTTGT CAAGTTTGTA ACAGTACCGT CAGCAACAGT	3000
AGCAGTTTGT GCCTTGAAGT CTTCTACGAC AGTGATAGCT GTTGGTTTCC ATTCTGTTGG	3060
AGCATTGTTG CGGAATTAG CCATAATCGC TTTGATTGT TCAGCACCAT CGACACCTGA	3120
AAGAGTAACA GAGATTGTTT TTTCTGCGTA GTAGCCATAT TCTTTATAGA TTTCTTCGAT	3180
ACCGTCAGCA AGTGTCAAAC CACGAGAACG GTAGTAGGCA GCAAGTTCAG CAACTACAAG	3240
AACGGCTTGG ATGGCATCTT TATCACGTAC AAATGGTTA ATCAAGTAAC CGAAGCTTTC	3300
TTCAAATCCC ATCATGTAAG TGTGGTTGTG TTTTCTTCG AATTCTTGA TTTTTCAGC	3360
GATAAATTG AAACCTGTCA AGACGTGAA CATAGTTCG CCGTAGCTTT CAGCAATCTT	3420
CGTTACCAAG TCAGTTGAAA CGATAGATT GCAGAGAGCG GCATTTTCAG GAAGAGTTC	3480
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AAGGTTGAGG TAGCTACCAT CTTTTGAAG AACTTCAACA CCAACACGGT CAGCGTCTGG	3600
GTCAGTTGCG ACAAGAACAT CTGCACCAAC TTGACGACCA AGTTCTTCAG CAAGGGCAAA	3660
GGCTGCTTGG CTTTCTGGT TTGGAGATGT TACAGTTGAA AAGTCTGGT CAGCAGTTGC	3720
TTGCGCTTCA ACAACTTGAA CAGAGTCAA TCCTGCTTGG GCAAGAGCAC GACGAGCCAA	3780
CATTTACCA GTACCATGAA GTGGTGTGTA GACAATCTTC ATGTCTTTAC CAAATTCTTC	3840
AATCAAGGCT GGGTTGATGT TTATGTCTT AACCTCTTA AGGTATTCTA TGTCACAGC	3900
TTGCCCGATA ACTTCAATCA AGCCAGAAGC TTTTTCAGT TCCACATCAG CAACTTCAAC	3960
TGCAAAATGG TTTTCGATT CACGGATATA AGTAGTCAA GCGTCCGCAT CGTGTGGAGG	4020
CATTTGTCCA CCGTCTTCAC CGTAAACCTT GTAACCGTTA AATGGAGCAG GGTGTGGCT	4080
GGCTGTGACC ATGATACCTG CGAAACAGT GAGATGACGA ACTGCAAATG ATAGTTCTGG	4140
AGTCGGACGA AGGCTTTCAA ATACGTAAGA TTTGATGCCG TGTTTAGCAA GAACTGCCGC	4200
AGATTCAAAG GCAAACCTAG GTGAGAAGT ACGGCTATCG TAGGCAATTG CTACACCGC	4260
TTCTTTCTCG TTCCACCTT TTAGTCAAT CAAACGAGC AATCCTTCAG TAGCTTGGCG	4320

856

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ACCAAATTCA AGATTTGTAT AGAAGGCATC TTCCTTAGTT TTTTCGTCCA TATTTTCCAA	4440
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GTAAGACATT CAAATTCCTC TTTATTTTAA AAACATTAA TCAGTTTAAAT TATATCATTT	4560
TTTTTAGTTT TAGTAAACC TTATCTGCTT CGAACATCTC TTCAAACCAG GTCAGATTGA	4620
ATTTTGGGT TATATGATGT TGAGGCTAGG AAAAATTCAA TTTCAAGTAA AAAAGTAAGT	4680
CTTCTCATAA CAAAACATTG ATATAGTTAC TTAGTTTAA ACAAGCATAT TATAATAAAG	4740
CTATGGCATA TAGTACTGAT TTTAAACAGC GAGCATTAGA TTACATCAA GAGGGGCACA	4800
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AGAAAGACGT GAACAAGAAC ACATAGAGAG GAAAAAGCGA GTCGTCAAAA ACCGAAAGAT	4920
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TGCGGCACAT TTTGATTGTG CTGTTCTTC AGTATGGCA GCTTTAAAGC AGATTAAGGT	5040
CACCTTAAAA AAAGATGACG AGCTTTAAGG AACAAGACCC AGAAAAGTAG CCTTATTCT	5100
TAAGAATTTT AATAGTTTAA AGCACCTAGC ACCTGTTTAT ATTGATGAAA CAGGAATCGA	5160
CCGCTATCTC TATCGTCCTT ATGCAGGGC TCCTAGAGGG GAGAAAGTCT ATGAAAAGAT	5220
TAGCGGACGT CGTTTGAGC GAACTTCAAT TGTTCAGGA CAAGTAGACG GAGAGTTTAT	5280
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ACCTTATTCA CCGGATTTGA ATCCTATTGA GCAAGCTTGG GCTATCTTGA AAAAGAAAGT	5520
GACGGATGTA TTAAGGGAAG TTCCAATAT TTTTGAATGT TTGGAATGCT TTTTAAAAAC	5580
TAGATGACTA TAACGGTCTT AAAGGAACCT ATCGAGTAGT CATTAAAACT AAGGATACTG	5640
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ACAAAACTC CATGATCAAT TTGAAGCAGA AGCAACGGAA GATGCTAAAA AACAAGGCGA	5940
TATTGTGTG AATGTTGACC AGGATTTTAT GAGCATATCT AAGTCTAATA AAAGTGTTT	6000
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TGTCTTGAAA CAGGTTGATA AAGATACTCC TAATACCCCA ACTTGGCTAA ACTCAGCTGC	6120

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GCAAAATGCCC TTAATAATGG TTGGGCTAGA TCTGGTCTG AAGAGTTCAA AAAGTTCTCC	6420
CACTTTGTAG GGGTAGACAA AGGGATTGTG CGAACGAATG TACTGACTGG TAAAAAACTA	6480
TCTGATAAGA TTAGGAAAGA AGTGGGCTCT GGAGATAGCA AACTAGGAAA AGGCGGCTAT	6540
TTCTCTACTG GGGATGTTCT ATTAGGAAAA GATGTTGTTT CTTATACCGT ACAAGTATTT	6600
TCAGAGAATA ATGAAGAGT AGGAGTAAAC ACTCAAAGTC ACCGTGTTCA GTATAATCTC	6660
CCAATTCTAG CTGACTTTTC AGTCATCCAA GATACTGTGG AACCATCAGC AACCGTTGTT	6720
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AAAGAAAGTG ACGGAACCTA CATTACCAAT AAAAACAAC TGATTGGTAC CAGCTATAAT	6960
GTCACAGATA AAAAAGTCAG TAGCATGACT ACTACTGACG GAAAATATTA TACTTTTAAA	7020
GAAGCAGATA CAAATCTGCG AAGTTTAACT GGAATATTG TAAGCGAAGG TAGAACAGTG	7080
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AAAGAAGGTA GGCAAGAGAA GTTGGTAGAG TCTGTTATAA AAGCTGATTT AGCGATAGGT	7200
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CAGAAGACGG TGCAACAGTT GACTATTACT ACCGTGAGAA TGTTGAGGAA ACAGTGGTTC	7380
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AAGTTACGAA CAAAATGTA AAAGAAGATG TTGTTCAACC TGTAACCTTA AGCCGTACAA	7500
AAACTGAGAA CAAGGTCACG GGAGTTGTAA CCTACGGTGA ATGGACAACA GAAACTGGG	7560
ACGAGGTTAT ATCTGGTAAG ATTGACAAGT ACAAAGATCC AGATATTCCA ACAGTTGAAT	7620
CACAAGAAGT TACGTGAGAC TCTAGTGATA AAGAAATAAC GGTAAGGTAT GACCGTTTAT	7680
CAACACCAGA AAAACCAATC CCACAACCAA ATCCAGAGCA TCCAAGTGT CCGACACCAA	7740
ACCCAGAACT ACCAAATCAA GAGACTCCAA CACCAGATAA ACCAACTCCA GAACCAGGTA	7800
CTCCAAAAAC TGAAGTCCA GTGAATCCAG ACCCAGAAGT TCCGACTTAT GAGACAGGTA	7860

858

AGAGAGAGGA ATTGCCAAAC ACAGGTACAG AAGCTAATGC TACCTTGGCT AGTGCTGGTA	7920
TCATGACCTT GTTAGCTGGT CTAGGATTAG GATTTTTCAG GAAAAAGAA GATGAAAAAT	7980
AATAGATTTT AGAATCTAGG AACCAGGAAA AGCTCACAGA TGTGGGCTTT TTTCCTGGTT	8040
TTGAGAACGA GGTCTTTCGT AAAGAATAAA AACGCTTACA AGTCTGTTGA ACTGGGAAAC	8100
TATGAATCCT ATTTTTTTAA AAATATTTC AGAAATCAGT TGCGG	8145

(2) INFORMATION FOR SEQ ID NO: 123:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8697 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

CGGTACCGGG AACGATACTT AGTCTAATTT TGCACCTTTT CCATGTATGG TAAAGGTTTT	60
TCTTTTTTTA AAAAGGAAAA CGAGAAGAGG AGGTTCCTAT GAAAGCAAGC ATTGCCTTGC	120
AAGTTTTACC CCTAGTACAG GGGATTGATC GGATAGCTGT TATTGATCAG GTCATTGCTT	180
ATCTGCAWAC TCAAGAAGTG ACGATGGTAG TGACACCATT TGAAACGGTC TTGGAAGGGG	240
AGTTTGATGA GCTTATGCGC ATTCTAAAAG AAGCGCTGGA AGTGGCAGGG CAGGAGGCAG	300
ACAATGCTCT TGCCAATGTC AAAATAAATG TAGGAGAGAT TTAAAGTATT GATGAGAAAC	360
TTGAGAAGTA TACTGAGACG ACACATTAGT CTATTGGGCT TTCTCGGAGT ATTGTCAATC	420
TGGCAGTTAG CAGGTTTTCT TAAACTTCTC CCCAAGTTTA TCCTGCCGAC ACCTCTTGAA	480
ATTCTCCAGC CCTTTGTTTC TGACAGAGAA TTTCTCTGGC ACCATAGCTG GCGGACCTTG	540
AGAGTGGCTT TACTGGGGCT GATTTTGGGA GTTTGTATG CCTGTCTTAT GGCTGTGCTC	600
ATGGATAGTT TGACTTGGCT CAATGACCTG ATTTACCCTA TGATGGTGGT CATTGAGACC	660
ATTCGGACCA TTGCCATAGC TCCTATCCTG GTCTTGTGGC TAGGTTATGG GATTTTGCCC	720
AAGATTGTCT TGATTATCTT AACGACAACC TTTCCCATCA TCGTTAGTAT TTTGGACGGT	780
TTTAGGCATT GCGACAAGGA TATGCTGACC TTGTTTAGTC TGATGCGGGC CAAGCCTTGG	840
CAAATCCTGT GGCATTTTAA AATCCAGTT AGCCTGCCTT ACTTTTATGC AGGTCTGAGG	900
GTCAGTGTCT CCTACGCCTT TATCACAACG GTGGTATCTG AGTGGTTGGG AGGTTTGTAA	960
GGTCTTGGTG TTTATATGAT TCAGTCTAAA AAAGTGTTC AGTATGATAC CATGTTTGCC	1020
ATTATTATTC TGGTGTGAT TATCAGTCTT TTGGGTATGA AGCTGGTCGA TATCAGTGAA	1080
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TTGTGCTTGT GGCCTGTGGT CAAGGAACTG CTTCTAAAGA CAACAAAGAG GCAGAACTTA	1260
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ACTCAATCAC ACCGATTGCC AATGGCGTCT TTGATACTGC TTGGATTAC TACGGTTGGG	1740
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GGCAGAAGCT ATTTCCCGAG CGGATAAAAT TCTTGCGACC TTCCAGCTGA CAGCTGTAAG	2520
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860			
GTAGAAAAAT	AGGGAGTTGG	TGAAGATTAT	CCTTTACCAG CGCCCTTTT CTTTAAAAA 2940
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CACGTCCTCT	ATGCGATTTT	GCATGATAGC	AATGCCTTGG CGACTCGTAT CTGGAGAGG 3840
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CTTGCCGAGC	GTATTGCTAG	TGGTGACGTG	CCTGCGGAAA TGGCTAAGAT GCGCGTGTTA 4260
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CTCCACACCA	TCATGGGTTT	TGGTAGCGGG	ATTGATTCTGA CTCTGGATGC GGCCAATATC 4440
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861

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GCAACAGTGC AAAATAAGGC AAAGCATGTA AAAGCAGACG ATTCAGATTT GAGTCCAGCT	4800
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GCCATTGCCC GCAACCAGTC AGGGATTGCG AGTCATAAGC GTCCGATTGG TTCCTTTATG	5100
TTCTAGGGC CTACAGGTGT CGGGAAGT GAATTAGCCA AGGCTCTGGC AGAAGTTCTT	5160
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GTGAAGATTA TGGTCAAGCC TTTAGTGGCA AGTTTGACTG AAAAAGGCAT TGAAGTAAA	5700
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862

AAAGTAGCGG ATAAATGAAA TCCATTCCAT TATCATAGAT GATAGGCTGG TAGGAAATTT	6480
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ACATTTTAGT TGCAGATGAC GAGGAAATGA TTAGAGAAGG AATTGCAGCA TTTCTGACAG	6600
AAGAGGGTTA TCATGTCAAT ATGGCTAAGG ATGGACAAGA GGTCTTGAA AAATTTCAAG	6660
ATCTCCCTAT CCATCTCATG GACTTGGATT TAATGATGCC TAGGAAGAGT GGTTTTGAAG	6720
TGTTAAAAGA AATCAATCAA AAGCACGATA TTCCTGTCAT CGTCTTGAGT GCTCTGGGAG	6780
ATGAAACTAC TCAGTCACAG GTATTTGATC TCTATGCTGA TGATCATGTG ACAAACCTT	6840
TTTCTTTGGT ACTGCTTGTC AAGCGTATTA AGGCGCTTAT CAGACGTAC TACGTCATAG	6900
AGGATCTTTG GCGATATCAG GATGTAACAG TGGATTTTAC CTCTTACAAA GCACATTATA	6960
AAAATGAAGA AATGTATCTC AAACCAAAGG AATTACTGGT ACTAAAGTGT TTGATTGAGC	7020
ATAAAATCA AGTTTAAAGT AGAGAGCAGA TATTGGAAGA AATTTCAAAA GATGTAGCTG	7080
ATTTACCTTG TGATAGGGTC GTTGATGTCT ATATTCGTAC TCTTCGCAA AAATTAGCTT	7140
TAGATTGTAT CGTGACTGTG AAAAATGTTG GGTATAAGAT TAGCTTATGA TAAAAATCC	7200
TAAATTATTA ACCAAGTCTT TTTTAAGAAG TTTTGCAATT CTAGGTGGTG TTGGTCTAGT	7260
CATTATATA GCTATTTATT TGACCTTTCC TTTTATTAT ATTCAACTGG AGGGGAAAA	7320
GTTTAATGAG AGCGCAAGAG TGTTTACGGA GTATTTAAAG ACTAAGACAT CTGATGAAAT	7380
TCCAAGCTTA CTCAGTCTT ATTCAAAGTC CTTGACCATA TCTGCTCACC TTAAGAGAGA	7440
TATGTAGAT AAGCGGCTCC CTCTTGTCGA TGACTTGGAT ATTAAAGATG GAAAGCTATC	7500
AAATTATATC GTGATGTTAG ATATGTCTGT TAGTACAGCA GATGGTAAAC AGGTAACCGT	7560
GCAATTTGTT CACGGGGTGG ATGCTACAA AGAAGCAAAG AATATTTTGC TTTGTATCT	7620
CCCATATACA TTTTGGTTA CAATTGCTTT TTCCTTTGTT TTTCTTATT TTTATACTAA	7680
ACGCTTGCTC AATCCTCTTT TTTACATTC AGAAGTGACT AGTAAATGC AAGATTTGGA	7740
TGACAATATT CGTTTTGATG AAAGTAGGAA AGATGAAGTT GGTGAAGTTG GAAACAGAT	7800
TAATGGTATG TATGAGCACT TGTGAAGGT TATTTATGAG TTGGAAGTC GTAATGAGCA	7860
AATTGTAAAA TTGCAAAATC AAAAGGTTTC CTTGTCCGC GGAGCATCAC ATGAGTTGAA	7920
AACCCCTTTA GCCAGTCTTA GAATTATCCT AGAGAATATG CAGCATAATA TTGGAGATTA	7980
CAAAGATCAT CCAAAATATA TTGCAAAGAG TATAAATAAG ATTGACCAGA TGAGCCACTT	8040
ATTAGAAGAA GACTGGAGT CTTCTAAATT CCAAGAGTGG ACAGAGTGTC GTGAGACCTT	8100
GACTGTTAAG CCAGTTTATG TAGATATTTT ATCAGTTTAT CAAGAATTAG CTCATTCAAT	8160
AGGTGTTACA ATTGAAAATC AATTGACAGA TGCTACCAGG GTCGTCATGA GTCCTAGGGC	8220

863

ATTGGATAAG GTTTTGACAA ACCTGATTAG TAATGCAATT AAATATTCAG ATAAAAATGG	8280
GCGTGTAATC ATATCCGAGC AAGATGGCTA TCTCTCTATC AAAAATACAT GTGCGCCTCT	8340
AAGTGACCAA GAACTAGAAC ATTTATTTGA TATATTCTAT CATTCCTCAA TCGTGACAGA	8400
TAAGGATGAA AGTTCGGTT TGGGTCTTTA CATGTGAAT AATATTTTAG AAAGCTATCA	8460
AATGGATTAT AGTTTTCTCC CTTATGAACA CGGTATGGAA TTAAAGATTA GCTGTAGAC	8520
AGATTAGTTT TTTATTAAAG TTCATATAGG GTTAACATAA GTGTGTTATT CTTGTGTAG	8580
ATAAAAGAAA GGATACTAAT ATGGTATTAG CGATTATTTT AGTAACATTC TTTATTCGAT	8640
TGATTTTTTT AAAGCGTTCG ATAGAGAATG AGAAACGAAT CCTTAGCAAT GCGGGG	8697

(2) INFORMATION FOR SEQ ID NO: 124:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4317 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:

AACCATACAT ACGCAAGGC AAAGCTGACG CGGTTGAAG AGATTTTCGA AGAGTATTAG	60
TTGCCTTTAA AGGCATCCAC CATCGTTGA AATCTTCAT TTGAGAGAGT AATCCCTTTG	120
CCCATTTTAG TATGGTCTGG ACTCCAAGCA CGAATATCAA ACTTTGCAGG GGCACCATTA	180
AAGCTCACAC GGTAAATTC CTTGGTCCAA CCTTTTTCGT TTTCAGAAAG AGTCAACAAG	240
TGCTCTTCGA TTTCAAATGT AAATCTGCC ATTTCTTCT CTTTTTTAG TTTCATTAGT	300
TTATTCGTAA AATCTTGTAG ATTTTAGGAA AATTTTATAT AATATTGATA TAAAGAAGG	360
GAGGCCAATA TGAGACATAA ATTCCAGCAA GTTCTAAATA AAATACATGA TTTTTTAAAT	420
GGATATGACC AACCTGACCA GACTGAAACC AACTCCCTTA CAGCCACTAT TGAAGAGGCT	480
ATCCAGAAAC AAACCGCTGT TCACCTTATC TTGTCTGAGA CAAGCTTTAC AGGTGACATC	540
ATCAAATATG ATCAGCAAGG CCAGCAAATT ATCGTGAAAA ATTTTCCAA AAATGTGAGC	600
CGGATTATCC GTATAAGCGA TATCAACGC CTGCGATTTG TCCCCCAAC TGTCCAAACA	660
GCCCCAAAAA ATAGATTTAA GAAAGAGTGA GATGTAGTTG CTTCATCCCA CTCTTTTTTC	720
TTAGCGAATT TGTTCAAAAT GTAAATGAAC TGCGATATGA TCTCCATAAC CACTTCTTTC	780
CAAGTCACGT TGTAAACGAT AGGAAATGTA GTGTTCTGCA ATGGTAATGT AACCTGCGCC	840
CAATAAACGA TGTCAACCA TAGATTGAAT CATACTGATA GTCGCACGTT CCACCTTGGC	900

864

TTCTTGTA	AACTCCAA	CTTCTTAG	GACTTGAG	CAATTTTG	GCAATCAT	960
TGTCAAA	CAAGTTT	GGGCTGCC	CAAGATGG	TGGTAAAT	TATCTGG	1020
AAATTCAG	CAATTCGCC	TACGTTTG	TACTTGCA	GGTTCTCT	TTATCTTG	1080
TTTTCTTG	TTCTGCCG	CATTTTTCT	TCTTCTAC	TCAGTTGA	ATGTTCA	1140
AAATCCGG	TGCGCTCG	GGTTTCTTT	AAACTCTCG	ACAATCGC	CTGACGA	1200
TTTTTCAT	GGCCACTC	CAATACAT	GGCAGGAC	TGCCTCG	ATCATAGG	1260
CGTGTGTA	GAGGATAT	TAAAGACCT	GAAGAAAAC	TATCATCT	GTGGCTAG	1320
TCCTTGCCA	TCACCTCT	AATCAGGC	ACTGTAGC	CAATCATG	CATAGCTG	1380
AATTCCTC	CAGTGAGG	ATAGTCAC	AGGGAAAT	CATCTGTT	CAAGGTCT	1440
ATGCGCTC	CATAACCT	ATAGTGCCA	CAGATAAG	TTAGCTCT	CTCTTGAG	1500
AAATCTTC	CATAAGCT	ATCAAACT	TTTCCAGC	GATCAAGG	AATAACGC	1560
GGATTTTT	TTTCAATG	ATCAAAGG	TCGAAAAT	GTTGTGCT	GAGCAAC	1620
CCCTGACCG	CTCCGTAG	CTCATCAT	ACATGACG	CCTTTTC	ATTTTCTC	1680
AAATFATG	ACTGGATG	CAAGAGCC	TTTTCTCG	CCTTTCCA	GATTGAGT	1740
TCCAGTGG	AAAACATC	TGGAAGAG	GTTAAAAT	CAATCTCA	CGTCTAAC	1800
TTCTAAG	ATCCACAT	CCCGTTT	TGGAATAT	ACATTGAG	CCACTGGT	1860
GATATAAG	AAAAGCAA	CACGTTTG	TTTTCGTT	ACCAACCA	CATCATTG	1920
ACCTGGTT	AGGATTT	TGATGGTT	AACCAAGC	TCACCTCA	AGACTTCA	1980
ACCGATA	ATCTGAT	AGAAATCA	ATCGTCT	TCATTCAA	CTTCCTCA	2040
GACCTTG	AGTATCC	TGTACTTT	GATAGTAT	ATATGGTA	TATCTTTG	2100
TTTAATA	ATGTTCT	TCTGTTAC	GTGGCTAG	ATGGTCA	TTTGGACA	2160
CTGATCT	TTTTC	TCATCAAA	AAACCAGC	AGCTCCTT	TTAAACCG	2220
ATCCGTC	ACAGACT	GCATCTCC	CTGTAATC	TGCGTATT	CGATTTTC	2280
AACATTAA	AGTAGTCT	TGTCTCCT	AATCTCCT	TTTCCATC	ATTCTAAC	2340
TTCTCGAA	ATAGCCGA	TTTTTTCC	TTCTGACC	TGTAATAA	GGTGATT	2400
TCCTAAAT	AGTTTAGT	TGGAAGTC	ATATTCTG	TCTCTGTA	CTTTTCT	2460
ATAAGGCT	CAAAAAAC	ATACAGGA	ATGAGCTT	ATAGATAC	CCTCAAA	2520
TTCTCAG	ATCTCTCC	ATATCTGA	TTCTGGAT	TGATTTTC	ACTCTA	2580
TTTTTCT	TGCTATCC	AGATTTTT	ATTCTGTT	GGACTAA	TTGCTT	2640
TAAGTTCT	TAATAAGT	CAGGACCA	CTCGTCA	AGCCTCAT	GCTCTT	2700

865

TTCTGGATAA GGATTTTCTG AAAAATCAGC AAACATGACT TTTTGTAGTTG TCGGTTCAAT	2760
TGCTACTAAA GTCTGACGCT TAATTGGTTT CTCGAGTAAT TTGCAAGCTA AAATCCACT	2820
CCAACTATGT GCACAAAGTA TATATTCAGA AATTCCTAAT TCTTCAAGTA CTTCATAAAC	2880
CGCATCTGCA AGATTATCTA GATTTTTCCT AGCTTGGTCA TGAATCGGAC TCCTACCTGT	2940
GTTCGGAATA TCAATTGTCA AATAACCAAT TGTAGGAGGA GGTTTTTCAT GTATAAGTGA	3000
AAAATTTTCA TAACTTGGTA GCAAACCTGC TCCGTTTAAA CAAACTAGCA CTTTCTTTTG	3060
CTTTTGATAA GTAACAGAGA GGCTACCAAT TTCTGTAGAT ACTTCAAACC TCTTCATAAA	3120
GAAATCCACT GATTCTATAT AATGAATTAT TAAAAATCCT TATCCTTTAT TTTATCACGT	3180
TCCAAGGATT TTCTCAAGTT GGAGGAAGGG GACAATATCT CTACTTTCCC TTCAATAATC	3240
CTTCCAAATT ATGTTTATGT TGGTAATTAA TGGCTGCGGT TTTGTCTTTC TCAAAGACAG	3300
TCTTGTAAG GTCAATATGA TTAATAGCTA CGATTGCGAC GGTGTAGTAA ATGATATCAG	3360
CCAGTTCTCT GGCAAGTTCC TCGTTCGAAT CCTATCCCTT CTTTTCGACC AGAGCGCCTA	3420
TTCAAAACCT CGACTACTTC TCCGACTTCC TCCACTAACT TCATAAAGAG ACCTTCATCA	3480
GTCCGAGACT GCTGTTAATG TTCGATTAAG TAGTCTTGA ATTGCCTAAA CGTTCAATCT	3540
TTTATAGTAT ATTGAACTA GAATAGTACA CCTTTACTTC TAAAACATTG TTAGAAATCG	3600
ATTTGACTGT CCTGATCGAT TTGTCCTGTT CTGTTTCAT TTTACTATAT CTTCTATTCC	3660
ACACAAAAA GCGAGACATC CGTCCCGCCC TTCTTATTTT TCGTCAATAA CGATTCTTAC	3720
TTTTTTGTAT TCAGTTGGGA CAGAGTAGAC AATCGTTCTT ATCGCAGAAA TAGTGCGACC	3780
CTTACGACCG ATTACAGCAG CCACATCGCT TTGATCAAGA TTCAAATGAT ATTCCAAAAA	3840
TTCTGGTGTA TCCTCAATCT TGATAGTTAA GGCATCTGGT TGTGAAATTA AGGGTTTCAC	3900
AATCGCAATA ATGAGATTTT CAATCGTATC CATCTGTCAA CCTACTTTAA ACTTATTTTG	3960
AAAATTTAGA ATCGTGAAT TTTTCAATA CGCCTTCTTT TGAAAGGATG TTACGTACTG	4020
TGTCGGAAGG TTGAGCTCCA TTAGCCAACC ATGCAAGAAC GCGGTCTTCT TTCAAAGTTA	4080
CTTGGTTTTC AGCAACAAGT GGGTTGTAAG TTCCAACCTG TTCGATGAAA CGTCCGTCAC	4140
GTGGTGAACG TGAATCTGCT ACGTTGATAC GGTAGAAAGG TTTTTCCTTA GAACCCATAC	4200
GAGTCAAACG GATTTTAACT GCCATTTTAA AAGTCTCATT TCTTTAATTT TTTATTTTCG	4260
TGAAATAGCT GAGCTATTTA GCACATGTTT TATTATAGCA GATTCTGGC ATGTGTC	4317

(2) INFORMATION FOR SEQ ID NO: 125:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4881 base pairs

866

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:

AATTTATTG ACTGGAAATT GTAGAGGTT CTCGAAATTT CTTGAATGGT TAAAATAAGG	60
ACAAGAGAAA ACATGGATAT CTATATCCTT GTGCCAAAAA AACCACTGCC CTCCCAGAC	120
CAACCTGAGG AAAGCAGTGA TTCTTATTTT AGGAGTTAGG AATGAATACA CGAAATCAAT	180
TTAGCTGATT ATTTTTGTGTT TTTCAAGAAT TCATCGTATT GTTTTTCAT TTCGTTCAAT	240
ACTTTTTCGT AGGCACCTTC AGATTTCAAT TTTTCCATCA ATTCTGGAAT CGCTTTATCT	300
GGGTCTACAG TACCAGTGTT GATAGCTGTA TCAAATGTGTT GCATTGTGTT AGCAATAGCT	360
GAGATTTTCAG ATTTTCACATT GTCAGTATTG AAGATAAATC CAAGCGCTGG AGATTCTTTA	420
GCTTCTGCCA ATTCTTTCTT AGAATTTTCG ATTTGTTGGT CTGTAACGTT TTCGTTGATG	480
TAAAGGATCC AGTGTGTACC AGTGTTCAT CCACCATGT GAGTGTTCCT TTTGTAGCCA	540
TCAAGAACGC GAACACGTTT TCTTTTACCT TCAATTTTTC CCCAGTTCTT GCCTTCTGGA	600
CCGTAAACAA GACCGTTCAA GAGTTCTGGG TTCGTATTCA AGAGGTTCAA GATTTCCATT	660
GATTTTCTT TGTCTTAGA GTTGTGTTGAG ATGACAAAGT TAGCAACTTG TGTGTGTTGG	720
TTTTTCTTGA TGAAGTAGT AATTGGTTTG ATTTGGATAT CTTTGTGGC AACACGTGAA	780
AGCAAGCTGT TACCGTAGTC AGCTGGTCCT ACTGTTTCTT CACGAACGAA CCAAGTATCT	840
TGTTGAAGGT CAAAGGAAGT ATCGCTTGTT GCGACGCTT TTGGAATGTA GCCAGCTTCA	900
TAGAATTTGT GAAGAGTCTT CAAGTGTCTT TTGAAACGAG GCACCTCGTA ACGGTTTACA	960
ACTTTAGTAG TATCGCCTTC AAGTCGATA ACGAATGGAA GACCGTTTGC TACTGGGTAG	1020
TCAAAATTAT CAGATGGGAT GAAAACCTTA CCAATAGCAA ATGGTACTAC GTCGAGGCT	1080
TTTTCTTTGA TTTGTTTCAA GACTGGCTCA AGAGTTTCGT AAGAAGTAAC ACCTGAAATA	1140
TCGATACCAT ATTTAGCAAG GAGAGTCCG TTGAAGCAA AGTTTGTAGA TGATGCAACG	1200
TTGGCTGCAA CTGGAACAGC GTAAATCTTA CCATTTACAG TATTACCCTT GATGTAAGCT	1260
GGGTCAAGTG CTTTGTAAAG GTCTTTACCT TCTTTTTTGT ACAATTCGT CAAGTCAGCG	1320
TAAGCACCTT TTTGAGCATT TACAATATAG TTATCTGCAA AGGCAATATC ATAGTTTCA	1380
CCAGATGATG TGATACTGA CATTTTCTTA CCATAGTCAC CCCAGCCAAG GTATTGGATA	1440
TCCAATTGG CACCAACTTT TTCTTCAATG ATTTTGTGG CATTTGCTAA CAATTCATCC	1500
AAGTTGTCTG GTTGTGACC GATTTGGTAC ATTTTGATAA CAGTTTGTG ACCTGAATCA	1560

867

GCAGCTTTTT	TGCTGTTACC	TGTCAAATTT	CCACAAGCAG	CAAGACCTGC	AGCCAGAGCG	1620
ACTACACTAG	CAGATGCAAA	AGCATATTTT	TTCCAGTTTT	TCATGATAAA	AACTCCTTTT	1680
TTTATTTTTA	AACTTATAAA	CAATGTAATG	ATCTTATACT	CAATAAAAAAT	CAAAGAGCAA	1740
ACTAGAAAAC	TAGCCGCAGG	CTGCTCAAAG	CACTGCTTTG	AGGTTGTAGA	TAAGACTGAC	1800
GAAGTCAGTT	ACATATATCT	ACGGCAAGGC	GACGTTGACG	CGGTTTGAAT	TTGATTTTCG	1860
AAGAGTATTA	ACTTCACACA	AGGGAAGTTG	GGAAGTGAAG	AATGTTATTT	CTCAATAAGC	1920
ACTATTCTTT	CACACCACCG	ATAGTCAAAC	CTTTTACAAA	GTAGCGTTGG	AAAAATGGAT	1980
ACAAAATCGC	GATTGGAAGG	GTTGCAACCA	CAACCATGGC	CATACGACCT	GTTTCTTTTCG	2040
GTAGAGCAAC	TCCCAGTTGA	CCAATCAAGC	CGACCGCTTT	GGCAATGTAG	TCCATATTTT	2100
GTTGGATTTG	CATGAGCAAA	TATTGCAATG	GATACAAGTT	GTCACTCTTG	ATGTAAAGAA	2160
GGGCGTTGAA	CCAGTCATTC	CAGAAACCAA	GAGCTGTTAA	GAGCGTGATG	GTTCGATAC	2220
CTGGTAGTGA	CAATGGCAAA	CAGATTGGA	AGAAAATCCG	GGCCTCACTG	GCACCATCGA	2280
TACGAGCCGA	TTCTAGAATG	GCTTCTGGAA	TGGTCTTCTT	GAAGAAGGAA	CGCATCAAGA	2340
TGATGTTAAA	TGGTGAGAGA	AGCATTGGAA	CAATCAAGGC	CCAAACAGTG	TCACCAAGCT	2400
GAAGTACACG	GGTCACCATG	ATATAACCTG	GTACCAAACC	AGCGTTGAAC	AACATACTGA	2460
GAAGGACGAA	GATGGTAAAG	AATCTGCGAT	ACTTAAAGGT	TGTCCGTGAA	ATAGCGTAGG	2520
CATAGGTTGT	TGTGATAAAG	ACATTTGTCA	ATGTCCCAAC	TACGGTTACA	AAGACAGAGA	2580
TGAAGAGGGC	TTGTAGGATT	TTATCCTTAA	ACTGTGCCAA	AAACTCAAAA	CCGTCTAAGC	2640
CAAATTGGGA	TGGGAAGAAG	CTATAGCCGT	ATTGGAGGAG	GCTTTTCTCG	TCTGTCACTG	2700
AAATAATGAT	AACGAATACA	AAAGGTAGGA	TACAAGAGAG	GGCAATCAAA	CCCGAAATGA	2760
TACTGAAGAA	GATATCTGCT	TTCTTACTGA	AGGAGTGAAT	GCCGACATTA	TCAATTTTTT	2820
CTTTTTTAAT	TTTCTTTTTT	GCCATATTCT	CCTCCTTTCT	AGAACAAAGC	TGAGTTTGGA	2880
TCGACTCGTC	TTGCAAGCAA	GTTTGATAGG	ATAACCAGAA	TCAAACCAAC	AACGGATTGG	2940
TAAAGACCGG	CTGCTGCAGC	CATACCGATA	TCTGCTGTCT	GAGTCAAACC	ATTAAAGACA	3000
TATACGTCCA	AAACGTTGGT	TACATTGTAA	AGCTGACCAG	CATTGTGTGG	GATTTGATAG	3060
AAGAGACCGA	AGTCTGCGCG	GAAGATATTT	CCGACTGCAA	GGATGGTCAA	TACAGTTACA	3120
AGCGGAGTCA	ACTGAGGAAT	GGTTACGTTG	CGAATACGTT	GCCACTTGCT	AGCTCCGTCC	3180
ACTGTCGCTG	CTTCGTAGTA	GGTTGGATCA	ATTCCCATGA	TCGTCGCATA	GTACATGACA	3240
CTGCTATATC	CAAAGCCTTT	CCAAATACCT	AGGAAAAGTA	GGAGATAGGG	CCAGATGCCC	3300

868

AGGTCAGCGT AGAAATTGAC TTCTTTGAGA CCAAGACTTT CCAATAGATG ATTGAACACC	3360
CCTTTATCAA TATTTAGGAA GGCATCTGTA AAGAACTGA TGATAACCCA AGACAAGAAG	3420
TAAGGGAACA ACATAGAAGT TTGAAAAATC TTCACCATTC TCTTAGAACG GAGCTCGCTG	3480
AGGATAATGG CAATCCCTAC AGATACAACT AAACCTAGAA AGATAAAGCC AAGATTGTAG	3540
AGGACAGTAT TTCGTGTGAT AATAAAGGCG TCTCTTGAAC TAAATAAGAA TCTAAAAATTA	3600
TCGAGTCCGA CCCATTTACT ATTTATGATA CTATCTATGA AACCATTACT GGTCACTGTGG	3660
TAGTCTTTGA AGGCAACCAC GTTCCCAAAT ACTGGAATGT AAAAGAATAG AATCAACCAG	3720
AGTGCCCCCTG GCAAAACCAT CAAGAGAAAG ATCCAGTTGT CTCTCAATGT TTTTGAAAAC	3780
TTTTTCATAA TTTCTCCCT TTTTATTTTG ATATCCATCT AAAAATTCCT TTTTAGACTT	3840
TTGATAACGA TTACATTATT AGTATACTCC TATTTGCAGG TTAGGTTAAA CTCCTAATTA	3900
TAGAAAAAC TCCACAAATT ATGTAGCAGA TTTAAACTT TATCACCCT ATCAAACAAA	3960
TGTCCTAAAT CAATTGTTTA TTTTATCTCT ATTAGCCCAG TGATGGCGTC ACTCTGTTAT	4020
AAGCATCCAA CAACGGGTA TACTGAAAA TCTCCAGACT AGGGAACCTCA GCGATAGTTC	4080
CTAATCTGGA GATTTTAAAT ATGTTATTAG GCGTTTGCTT TCAACTTAGC AATAACCTCT	4140
TTAAGATTAT CAATCAACTC TGCTGCAGTA TGCTCAGAGC CTTTTTCATC TGCCAAGAAC	4200
AAAAGTGCTT TTTGAAGTTC TTTTGTAGAG TTTTCAAGGA CATCCTTATC TACTGTTTCA	4260
AGGTTTGAGT CTTAAGAAG TTTACTTAAT TCCTTGGCTA ATTTCTTGAG TTTGATTTGC	4320
AGACTCATCT TCTCTGCTG TTTCTTTGCC CGCTGTTTGT CCTCCATCCT TAGTTGCTGA	4380
CTGGCTTTCC TTAATGGACT CTAGGGAAGC AATGGCATCT TTGACTGTTT GCAAGATATC	4440
ACGTAAACCT TGCTCTGTCA AACTATCATC TGCAAAAGCT TTATTAGCCT CTGCCAAAAC	4500
CAGACGTGCT GAATCTGTGG TAGGATTCGA TACACCTGTC AATGATCTCA AAAGATTTTC	4560
TAAGGTTTGA GTCTGCTTAC TAATACTAGA CTAATAATCAA AAAGTATTAT ATAACAGTGA	4620
TATGAAATCA ACTAAGAAG AAATCCAAAC CATCAAAACA CTTTTAAAAG ACTCTCGTAC	4680
AGCTAAATAT CATAAACGCC TTCAAATCGT TCTATTTTGT CTGATGGGCA AATCTTATAA	4740
AGAGATTATA GAACCTTTAT AGTAGTTTGA AATAAGATGT GAACATCTCT ATCAGGAAAG	4800
TCAAATTAAT TTATAGAAAT ATTTTAGCAG CCAAGGTGTA CTGTTATAGA TTCAATACAC	4860
TATACTTGGT GGTTTAGCTC G	4881

(2) INFORMATION FOR SEQ ID NO: 126:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13121 base pairs
 (B) TYPE: nucleic acid

869

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:

AGGATCCCCG GAAAAGGAGA CTAAAAATGA AGAAAAAATT TCTAGCATT TGTCTAATTT	60
TATTCCTCAAT TTTCTCATTA GGTATTGCCA AAGCAGAAAC GATTAAGATT GTTCTGATA	120
CCGCCTATGC ACCTTTTGAG TTTAAAGATT CAGATCAAAC TTATAAAGGA ATTGATGTTG	180
ACATTATTAA CAAAGTCGCT GAGATTAAAG GCTGGAACAT TCAGATGTCC TATCCTGGAT	240
TTGACGCAGC AGTCAATGCG GTTCAAGCTG GGCAAGCCGA CGCTATCATG GCAGGGATGA	300
CAAAGACTAA AGAAGCTGAA AAAGTCTTCA CCATGTCTGA TACTTACTAT GATACAAAAG	360
TTGTCAATTG TACTACAAAG TCACACAAAA TTAGCAAGTA CGACCAATTA ACTGGCAAAA	420
CCGTTGGTGT TAAAAACGGA ACTGCCGCTC AACGTTTCCT TGAAACAATC AAAGATAAAT	480
ACGGCTTTAC TATTAATAACA TTTGACACTG GTGATTAAAT GAACAACAGC TTGAGTGCTG	540
GTGCCATCGA TGCCATGATG GATGACAAAC CTGTTATCGA ATATGCCATT AACCAAGGTC	600
AAGACCTCCA TATTGAAATG GATGGTGAAG CTGTAGGAAG TTTTGCTTTC GGTGTGAAAA	660
AAGGAAGTAA ATACGAGCAC CTGGTTACTG AATTTAACCA AGCCTTGTCT GAAATGAAAA	720
AAGATGGTAG TCTTGATAAA ATTATCAAGA AATGGACTGC TTCATCATCT TCAGCAGTGC	780
CAACTACAAC TACTCTCGCA GGATTAAAAG CTATTCTCTGT TAAGGCTAAA TATATCATTG	840
CCAGCGATTC TTCTTTTGCC CCTTTTGTTC TCCAAAATTC AAGCAACCAA TACACTGGTA	900
TTGATATGGA ATTGATTAA GCAATCGCTA AAGACCAAGG TTTTGAAATT GAAATCACCA	960
ACCTTGGTTT TGATGCTGCT ATCAGTGCTG TCCAAGCTGG TCAAGCCGAT GGTATCATCG	1020
CTGGTATGTC TGTACAGAT GCTCGTAAG CAACTTTGA CTTCTCAGAA TCATACTACA	1080
CTGCTAATAC CATTCTTGGT GTCAAAGAAT CAAGCAATAT TGCTTCTTAT GAAGATCTAA	1140
AAGGAAAGAC AGTCGGTGTT AAAAACGGAA CTGCTTCTCA AACCTTCCTA ACAGAAAATC	1200
AAAGCAAATA CGGCTACAAA ATCAAAACCT TTGCTGATGG TTCTTCAATG TATGACAGTT	1260
TAAACACTGG TGCCATTGAT GCCGTTATGG ATGATGAACC TGTTCCTCAA TATTCTATCA	1320
GCCAAGGTCA AAAATTGAAA ACTCCAATCT CTGGAACCTC AATCGGTGAA ACAGCCTTTG	1380
CCGTTAAAAA AGGAGCAAAT CCAGAACTGA TTGAAATGTT CAACAACGGA CTTGCAAACC	1440
TTAAAGCAAA CGGTGAATTC CAAAAGATTC TTGACAAATA CCTAGCTAGC GAATCTTCAA	1500
CTGCTTCAAC AAGTACTGTT GACGAAACAA CGCTCTGGGG CTGCTTCAA AACAACTACA	1560

870					
AACAACTCCT	TAGCGGTCTT	GGTATCACTC	TTGCTCTAGC	TCTTATCTCA	TTTGCTATTG 1620
CCATTGTCAT	CGGAATTATC	TTCGGTATGT	TTAGCGTTAG	CCCATACAAA	TCTCTTCGCG 1680
TCATCTCTGA	GATTTTCGTT	GACGTTATTC	GTGGTATTCC	ATTGATGATT	CTTGCGAGCCT 1740
TCATCTTCTG	GGGAATTCCA	AACTTCATCG	AGTCTATCAC	AGGCCAACAA	AGCCCAATTA 1800
ACGACTTTGT	AGCTGGAACC	ATTGCCCTCT	CACTCAATGC	GGCTGCTTAT	ATCGCTGAAA 1860
TCGTTCGTGG	TGGTATTTCAG	GCCGTTCCAG	TTGGCCAAAT	GGAAGCCAGC	CGAAGCTTGG 1920
GTATCTCTTA	TGGAAAAACC	ATGCGTAAGA	TTATCTTGCC	ACAAGCAACT	AAATTGATGT 1980
TGCCAAACTT	TGTCAACCAA	TTCGTTATCG	CTCTTAAAGA	TACAACTATC	GTATCTGCTA 2040
TCGGTTGGT	TGAACTCTTC	CAAACGGTA	AGATTATCAT	TGCTCGTAAC	TACCAAAGTT 2100
TCAAGATGTA	TGCAATCCTT	GCTATCTTCT	ATCTTGTAAT	TATCACACTT	TTGACTAGAC 2160
TAGCGAAACG	CTTAGAAAAG	AGGATTCGTT	AATGGCAAAA	TTAAAAATG	ATGTAAATGA 2220
TTTACACAAG	CACTATGGAA	AAAATGAAGT	CCTAAAAGGA	ATTACGACTA	AGTTCTATGA 2280
AGGAGATGTT	GTTTGTATCA	TCGGTCCTTC	AGGTTCTGGT	AAGTCAACTT	TCCTCCGTAG 2340
CCTCAATCTT	TTAGAAGAAG	TCACTAGCGG	TCACATCACT	GTGAACGGCT	ATGATTTAAC 2400
TGAAAAACA	ACCAATGTTG	ACCACGTCCG	TGAAAATATC	GGCATGGTAT	TCCAACACTT 2460
CAACCTCTTC	CCTCATATGT	CTGTATTGGA	CAACATCACC	TTTGCTCCTA	TTGAGCACAA 2520
GTTGATGACT	AAGGAAGAAG	CTGAGGAATT	GGGAATGGAG	TTGCTTGAAA	AGGTTGGACT 2580
AGCAGATAAA	GCTAATGCCA	ATCCAGATAG	CCTATCAGGT	GGTCAAAAAC	AACGTGTGGC 2640
CATCGCTCGT	GGCCTAGCAA	TGAATCCAGA	CATCATGCTC	TTCGATGAAC	CAACTTCTGC 2700
CCTTGACCCT	GAGATGTTG	GAGACGTACT	TAACGTTATG	AAGGAATTGG	CTGAGCAAGG 2760
CATGACCATG	ATTATCGTAA	CCCATGAGAT	GGGATTTGCT	CGTCAGGTTG	CCAACCGCGT 2820
TATCTTTACT	GCAGATGGCG	AGTTCCTTGA	AGACGGAACA	CCTGACCAAA	TCTTTGATAA 2880
CCCACAACAC	CCTCGTCTGA	AAGAGTTCTT	AGATAAGGTC	TTAAACGTCT	AAACTCAAAC 2940
TGTAAGGATT	TCCTTGCACT	TTTTCTACCT	CGTATTGGAA	TTTTTGATTT	TTCGGAAAAT 3000
TATGTTAGAA	TTAAGTTTAT	GAAATGAGGT	TTCCTCATAC	CTAGCAAGAC	TAGGAATAAA 3060
AATAGAAATT	AGGTAGCTAG	ATGTCATCTA	AGGTTATTGT	TACAATTTTC	GGTGCGAGTG 3120
GAGACCTGGC	TAAACGCAAG	CTCTACCCTT	CCCTTTTTC	ACTATATCAA	TCCGGCAATC 3180
TTTCCAAGCA	CTTTCGCCGT	ATTGGAACGT	CCCGTAGACC	TTGGAGTAAG	GAATATTTTG 3240
AATCTGTAGT	TGTCGAGTCC	ATCCTTGATT	TGGCAGATAG	TACCGAGCAA	GCCCAAGAAT 3300
TTGCTAGCCA	CTTCTACTAT	CAAAGCCATG	ATGTCAATGA	TTCGGAACAT	TATATTGCTT 3360

871

TGCGTCAATT ACAAGCTGAG CTTAATGAAA AATACCAAGC TGAACACAAT AAGCTCTTCT	3420
TCTTGTCTAT GGCACCTCAG TTCTTTGGAA CCATTGCCAA ACACCTCAAA TCTGAAAACA	3480
TTGTCGATGG CAAAGGTTT GAGCGCTTGA TCGTTGAAAA ACCATTTGGT ACAGATTACG	3540
CAACTGCAAG CAAGTTGAAT GACGAACTCC TAGCAACATT TGACGAAGAA CAAATTTTCC	3600
GTATCGACCA TTATCTTGGT AAGGAAATGA TCCAAAGCAT CTTTGCAGTT CGCTTTGCAA	3660
ACTTGATTTT TGAAAACGTT TGAACAAGG ATTTTATCGA CAATGTTCAA ATTACCTTTG	3720
CGGAGCGCTT GGGTGTAGAA GAACGTGGTG GCTACTATGA CCAATCCGGT GCCCTCCGTG	3780
ACATGGTCCA AAACCACACT CTACAACTTC TTTCGCTCCT CGCCATGGAC AAACCAGCAA	3840
GCTTCACAAA AGACGAGATT CGTGCTGAAA AGATTAAGGT CTTTAAAAAC CTCTATCATC	3900
CAACTGATGA AGAACTCAAA GAACACTTTA TCCGTGGGCA ATACCGCTCT GGTAAGATTG	3960
ATGGCATGAA ATACATCTCT TATCGTAGCG AGCCAAATGT GAATCCAGAA TCAACAAC TG	4020
AAACCTTTAC ATCTGGTGCC TTCTTTGTAG ACAGCGATCG ATTCCGTGGT GTTCCTTTCT	4080
TTTTCCGTAC AGGTAAACGA CTGACTGAAA AAGGAACTCA TGTC AACATC GTCTTTAAAC	4140
AAATGGATT C TATCTTTGGA GAACCACTTG CTCCAAATAT TTTGACCATC TATATTCAAC	4200
CAACAGAAGG CTTCTCTCTT AGCCTAAATG GGAAGCAAGT AGGAGAAGAA TTAACTTGG	4260
CTCCTAACTC ACTTGATTAC CGTACAGATG CGACTGCAAC TGGTGCTTCT CCAGAACCAT	4320
ACGAAAAATT GATTATGAT GTCCATAATA ACAACTCAAC TAACTTTAGC CACTGGGATG	4380
AAGTTGTGC GTCATGGAAG TTGATTGACC GTATTGAAAA GCTCTGGGCT GAAAATGGTG	4440
CCCCACTTCA TGA CTATAAA GCTGGAAGCA TGGGACCTCA AGCCAGCTTT GACCTACTTG	4500
AAAAATTCGG TGCCAAATGG ACTTGCCAAC CAGATATCAC CTATCGTCAA GATGGTCGCT	4560
TAGAATAAAA AAATTTCTCG CAAGTTTATG CcTTGCAGGA TTTTGCCTTC TGATTAGATT	4620
AAACCTTCCA AGAGACCTTT CATAAAGTTT TCTGAGTTAA ACTCTCCAAT ATCATCGATT	4680
TTTTACCAA AACCAATCAA TTTTACAGGA ATATTGAGTT CTTACGAAT GGCTAGAACC	4740
ACACCTCCTC GAGCAGTTCC ATCAATCTTA GTCAAAACAA TTCCCGTTAA AGGTGTGATT	4800
TTGAAAAATT CTTTGGCCTG TACTAGGGCA TTTTGACCTG TTGATGCATC AAGTGCCAAG	4860
AAGGTTTCAT GTGGTGCTTC TGGCACAACA CGTTTGATAA TACGACCAAT CTTTCCAAC	4920
TCAGCCATAA GGTATCCTT ATTTTGACAG CGACCAGCAG TATCAATCAT GAGAATATCG	4980
ATACCTTCAG TCACGGCACG TTCCATACCA TCAAAGACCA CGCTGGCTGG ATCAGCTTTT	5040
TCAGGTCCAG TTA CTACTGG AACATCTACT CGTCGGCCCC ATTCAGCTAG CTGAGCTACT	5100

872

GCACCCGCAC GGAAGGTATC TGCTGCAACC AGCATGACCT TCTTACCAGC TTGTTTGTAG	5160
CGGTGGGCTA GTTTTCCGAT AGAAGTTGTT TTCCCAACAC CATTCACACC AACAAAGAGC	5220
ATAACTGTCA AGTTATCTTG GAAGTGGATG CTTTCATCGT AGCTACCATC CTTTTCATAA	5280
AGCTCAACCA ATTTCTCAAT GATGACACGA CGAAGTACAT CAGGTTTCTT GGCATTTTCA	5340
AGCTTGGCTT CGTAACGTAG TTCTCCGTT AAGTTAGAAG CGACTTGGAC ACCAACATCA	5400
CTCATAATCA GCAGTTCCTC CAGTTCCTCG AAAAATTCTT CGTCAACAGA GCGGAAGTTA	5460
GCAAAGAAGG CATTCAAGCG GGCACCGAAA CCTGTGCGAG TTTTCTTAAG ACTGCGGTCA	5520
TATTTTTCCT GAACAGTTTC TTCTGTTTGA GGAGCTTCTG GTTCAAGCAC TTCAGAATTA	5580
TTTCTTCTA CAGTTCCTTC GTGCTCAAGC TTCTCTTCTT CTGGTAATTC TTCTGAGTTT	5640
GGTAATTCTT CTATTTCTTC TTGAGAAACC CCTACAGCTG GCTCTGAATC CTGACTTTCT	5700
TCAACTGTGT CTGGATTTC CTCTTCTTG AACACAGCTT GTTCAACAAT TTCAACCTCT	5760
GCTTCTTCTT GAGAAACTTC CTCAACTTCT GTGAAGGTAG GATCAACATC TTCAGACAAA	5820
TCAAGATTTT CCAGAGCTTC TTTTACAAC TCTTCGATTT TAGGTTCTTC TTTTTTCCG	5880
AATAGACGGT CAAACAATCC CATATCTTAG TTCTCCTTTA GCACATATTC TTCGATAGCC	5940
CAGGCGACAG CTTCCTCATC GTTGGTCATC GCGGTCACTA CATTTGCGGC TGCCTTTACT	6000
TCAGGAACAG CGTTTTGCAT AGCAACACCA AGACCTGCCC ATTCAATCAT AGAGAGGTCA	6060
TTGGCTCGT CACCACAAGC CATCACTTGA CTTTGGTCGA TTCCAAGATG GCTGATTAGT	6120
TTTGCCAAAC CTGTTGCTTT ATGAACATTC TTTGGTGACC ATTCTAGCAA CATTTACAGT	6180
GATTTAAAGA TTTCATATTG GTCAACAAT TCTGGAGAAA TCTTCTGAAT GGCTGCATCC	6240
AAGGGTTCTT GAGCAAAGGC AGTCACGCAT TTGTTGTAGG TCATTTGACT AGATAAGTCT	6300
TCAAAGTCCA CTGGAACAAA GGTCAAAGCT GGATTGAATT TGGCATAAAG ACTTCTTGG	6360
TCCGATTGGA TTTGATAAAC TGTTCCTTCT GAGATGGCAT CAAGAGGCAG TGATAATTC	6420
TCTGTTTCTT CATACAAACG TGCCACATCA TCATATGAAA AGACTGTTTT ATCAAGGATT	6480
TCTCCTGTAT TTTTCTGAAC TAATCCACCA TTAAGTAA TGGTATACTC ATCTTCCTGA	6540
CCGTCAGTCC CTAACCTCATG GAGAAAGAAA TCCATGGCTT TTAAGGGACG ACCAGTTGTC	6600
AATACGACCT TGATACCAG ATCACGCGCA gCTTGCAAGG TTTCTTGGT ACGATCCGTC	6660
AGCCTTTTAT CAGTAGTCAG CAAGGTCCCG TCCAAGTCCA ATGCAATCAA TTTTATATCT	6720
GCCATTATAA GCCCTCCATA TAAGCTATAA CCGACCGTTC CTTATGGTGA CCAATCACAG	6780
TCTTTGCTAA TTCTAAAATT TCAGGTCGTG CATTTTCAGG AGCTACAGGA TGTCCACAA	6840
CCTGCATCAT ATGTAAGTCA TTAAGATTGT CTCCAAAAGC CATGACCTGA TCCATTGTGA	6900

873

TACCAAGTTT	TTTAACTAAT	TCAACAATGG	CCACTCCCCTT	ATCGACATAG	TCCAGAACAA	6960
TATCAATGGA	TTCAAAGCCA	GTTGTCAATGG	CCTTAACACC	AGGAACGTTT	TCGTTTACCC	7020
AAGCCTCCCC	ATCTCCAGC	GTTTCTTCTG	TGAAGTTGGT	TGTAAATTG	AAAATGTCAT	7080
CTGTGATATC	TTCCAAACTC	GCTACTTTT	GGATATTTTC	ATTATAGTGC	TGACTCACTT	7140
TCAAATAGGT	CTCATCAACC	GTATCTAGAA	CATATGAACC	CTTCTTACCC	GTCAGAGCA	7200
GTTTATTGAT	ATCTACATAA	GGTGAAGTTT	TCAGCTTTTC	AAAAGTTGCC	AGATAAAAGT	7260
CACGAGACAT	AGTCGCTTCA	TACAAGTCCT	GACCTTGATA	CTCTACCAA	CTGCCATTTT	7320
CCGCGATGAA	AATAATGTCA	TCACGAACAC	CAGCAAATAA	TTTTTCTAGA	GACAGAAATC	7380
CCCACC	AGCTACCGCA	AAGTAAATCC	CTTTTTCCTT	GTAGGAAACC	AAGAGAGACT	7440
TGAGACGATC	CATATCAAAG	CGTCCATTCC	CATCTAGGAA	GGTTCCGTCC	ATATCCGTTG	7500
CTACTAGTTT	AATTGTCATC	CTTCAATACT	TTCTAAATCT	TTTAACTTAA	CTGAAACAAT	7560
CTTTGAAACA	CCCATTCTT	GCATGGTCA	TCCATAGATG	GAATCAGCCG	CTGCCATGGT	7620
TCCCTTACGG	TGGGTTACGA	CGATGAAC	GCTGTCCCTG	TCAAAGCGGT	TGAGGTAATC	7680
CCCAAAACGT	TTAACATTGG	CTTCATCCAG	CGCAGCTTCC	ACCTCATCCA	AGATAACAAA	7740
TGGAATAGTC	TTGACACGAA	TAATGGAGAA	GAGCAAGGCA	AGAGCCGATA	GGGCTTTTTC	7800
ACCACCACTC	ATGAGATTAA	GAGACTGGAT	TTTCTTGCCT	GGTGGTTGGA	CAGAAATTC	7860
AACCCAGCT	GTCAGCAAGT	CTCCTTCAGT	CAAAATGAGG	TCAGCCTGAC	CTCCACCAA	7920
CATCTGCTTG	AAGGTCAC	TAAAGGACTC	ACGAATGACC	TCAAAGGTTG	ATTTAAAGCG	7980
TTCTTGACC	TCATCATTCA	TCTCTGTAAT	GGTCTCAAGG	AGCAGGTTT	TCGCAGACAA	8040
AATATCATCA	CGTTGGCTAT	TTAGGAAATC	CAGACGGTTG	TGAACTTCTT	CGTACTGTTC	8100
AATAGCGTCT	AAATGACAG	GACCCAGTGA	GCGTATAGCC	TTCTCTAAAT	CCTTAACTTC	8160
TTGCTCTGCC	AGATTGAGAT	TTTCCAACTC	ATGCGCCTTT	TCTAAAGCTT	CTGTGTAGCT	8220
GATCTGGTAC	TGGTCTGTTA	ATTGACTTTG	TAGATGGCGC	AAGCGCTCGC	TAACCTTTTC	8280
TTTCTTGGCT	TCAGCACGAG	TTTGCTTGCG	AATCCACTCT	TCATTCTGCT	GGCGAGCCTG	8340
ATCCAAATGA	CTAGCAATAT	CATCCAGTTG	ACCCTCAATA	TCATCCAAC	CAAACTGCTT	8400
GCGAATCAAA	CCTTGTGGA	GATTGTGTTT	TTGAGTTTGG	GATTCTTCCG	CCTGTTGACT	8460
GAGCAATTCT	GTATCAACCT	TCTCAAGATT	ATCAATCTTT	TCTTGAAGAA	GGCGCTGGAT	8520
TTCTCTTGT	TCAAAATCAA	GATTGTCCAA	TTCTTGCCT	AAGCGTTCAA	TATCAGCAAC	8580
TTCATAACGT	TTTTGCCCTT	GCAGTTCTGT	CTTAAGCAAA	CGAGCTTGCG	CTAGCTCTTC	8640

874

CTGCAAGTTT TGATAGCGTT CTTGGATGGC ATTTTGTGTA GACTTAATCT CTTCAATCTC	8700
AGCTTCCAGA TTTTGCTTGT CACTGGAGAT TGCAGCAAGA CGCTCTTGGC AGTTTTCCTT	8760
ATCCGCTTGC CAATCTCCCT CGGAAAGACG ATCTATTTCC TCTTCTTGA GTTTCCAAAG	8820
AGTTTCCAGT TCTTCAACTT GCTGACTAGT TTGCTGATA GCGAGGAACA AGCCTTGCTC	8880
CTGAATACGT GCCTGCTCTC CTTGAGATTT AATAGCTTCT AATGACTCGG TCAATCTGGC	8940
CATCTCATCT TGCAAGGTCT TCAAAGTCGC CTCTTCTGAA CCCAAGCTTG CTTCTTCTTC	9000
AGCAATTTCT TTTTGTAAAT GCTCCAGTTC TGGCTTGATA AAAATGCTGT TATTCTGGCG	9060
ATTGGCACCA CCTGCATAAG AACCACTGT GCGCAACTCT GTCCCATCCA ATGTCACCAT	9120
ACGAACCTGA TAACGAACTT GCGGAGCTGC TGCACGCGCA TGTCTACGG TATCAAAGAT	9180
AGCCGTCGTA GCTAGCAAGT TCTTGAAAAT GGCTTCCAGT CTAGTATCAA AAGTCACCAA	9240
CTCATCTGCC ATCCCAAGGA AACCTGGGCT TACAGCGATA GCATCTTGGT TCTGACTAGA	9300
AATCGTACGC GCCTTGATAG TGGTCAAAGG AAGAAAGGTT GCACGACCGG CTCTGTTCCG	9360
TTTAAGGAAG TCAATAGCCT TGGTTGCCGA CTCCTCATCT TCTACGATGA TATGCTGGCT	9420
ACTTGGCCCT AAGGCAATCT CTAGGGCAGT TTGATAATA ACATCAAAGG TCAGATGCTC	9480
ACTGACTGCA CCAATAATCC CACCTAGGCG ATCTTTTCT TGGAGAACAC TCTTAACACC	9540
TGCATAAAG TTAATATGAT TTCTCAGGAT ATTTTCCAAA CTTTGAGCTC TGGCCTGCTT	9600
GTTTTTGAGA TTATCCAGAC GGTCAAAGAG TTGGCTTTGT TGAGCTTGAT AGGAAGTTT	9660
CTGCTCCTCT TGCTCCTTGG CAATAGCTTG GTAGTCAGCC AATAATTCT GAACCTGCTC	9720
CTTGGCAGTT TCAAGCTCTT CCTTTGCTG ACTAGCCTTC TCTTAGCTA TAGCTAATTG	9780
CTCTTTCAGC TTTTCTAGTT GATCTGCTTG TTTTGAGAA AGCTGACGAC TATTTTCCAA	9840
CTCATTCTCA ATACGGGTCA ACTGGTTTGA GACATCCGCT TCTTCTGTA AAAGAGCTAC	9900
AAAGCGTCA CGTAAGAGCT CAATCATCTG ATCAGGATCG TCTGAGAAAG CCAGCAATTC	9960
AGCTTCTAAA CGATTGAGTT TTTGATTATT TTGACTAGA TTTCCCTCTA ACAGAGCTAA	10020
AGAGCTTTCT TTATCAGACT TTTCTTTGCT GAGTGAATTT CTCTTATCCT CCAAAGCAGC	10080
CAAACGGGCT TGTGCCTCCT GTTGATTCAA GGCCACTTGC TCGGACTCCA GTTTCGATAG	10140
GGCTAATTTT CTTTCTAAAT CACTAATCAG ACTAGTCAAG TCCATCAAAC TGCCTTGGTC	10200
TTTGGCCATT TCAGCCTGTA AATCTTGGCG TTGCTTTTGA AGAGTTTGAT TTTCTTCTTC	10260
TAATTTTCA CGCTTTTGGT AATAACTCAT CAAGAGTTCT TGAACCTGAG TCAACTCTTC	10320
TTCTGTCGAC TCTAGTTCAG CCTTATTTTC CTTGATTGTA GCAACCAGAA CATCTAAATA	10380
AATAGCCTTA CGTTGTCCTT CCAAGTCTAA AAACCTACGG GCATTCTCAG CTTGCTTCTC	10440

875

AAGAGGCTTG	ATTTGATTAT	CCAACTCGTA	GATAATGTCC	TCTAAGCGGT	CCAGATTATC	10500
CTGAGTTTGC	TGCAGTTTAC	TCTCGGTTTC	TTTTCTGCGA	GTCTTGTTAT	TTAAAACTCC	10560
AGCAGCTTCT	TCAAAAATAG	CTCGTCGTTT	CTCAGGCTTG	GAATTAAAAA	TCTCCTCAAC	10620
CTTCCCTTGG	GAAATAATAG	AGAAGGAATC	TCGTCCCAAT	CCAGTATCCA	AGAAGAGGTC	10680
ATGAATATCA	CGCAGACGGA	CTTTCTTGCC	GTCAATCTTG	TATTCGCTAT	CTCCACTACG	10740
ATAGACATGG	CGTTCCACCC	TGATTTCTTG	ACCTGCATCC	TTGATAAATC	CGTCATGATT	10800
ATCCAGAGTC	ACAACTACAG	AAGCATAATT	GAGCGGTTTG	CGACTTTCGG	TTCCAGCAAA	10860
GATGATATCC	GGCATCTTGC	CCCCACGGAG	ACTCTTGACA	CTAGACTCCC	CCAAAGCCCA	10920
ACGCAGACTT	TCTGTAATAT	TGGACTTTCC	AGATCCATTG	GGTCCAACAA	CTGCCGTAC	10980
ACCTTGGTCA	AAAACGACCT	TGGTCTTATC	AGCAAAAGAC	TTGAACCCCT	GAATTTGAT	11040
TTCTTTTAAA	TACATGAATC	CAGCCCCTTC	TCAACGGCAT	TTTTGGCAGC	TTCTGTCTCT	11100
GCTAATTTCT	TAGAACGACC	TTGGCCTTGA	CCGATGCTCT	TACCTTCAAC	AAGAATTCTT	11160
ACATCAAAAA	CCTTATCGTG	AGCAGGCCCT	GTTTCAGAAA	TCACCTGATA	ACGAATAGCC	11220
ACATCACCAT	TGACCTGAAG	CAACTCTTGG	AGATGGGTTT	TATAGTCTGT	AATCATCTCA	11280
AACTCGCCTG	CTTCAACCTT	AGGAATCATG	ACTTGATAGA	TAAATTCCTT	GACCTTGGCC	11340
ACATCCTTAT	CCAAAAGAAG	GGCACCAGA	AAGGCTTCAA	AGGCATCACC	AAGAATGGTG	11400
TCACGATTGC	GACCACCTGA	TTTTTCTTCC	CCTTTACCCA	ACTTGATAAA	CTGGTCAAAC	11460
TGGCAATCAC	GCGCAAAACC	AGCTAAACTC	TCCTCACGGA	CAATCATAGC	ACGGAGTTTT	11520
GATAGGTCAC	CTTCAGGCTT	TTTAGGATAT	TTTTTATATA	GATATTCTGA	AATCAATAAC	11580
TGTAGAACAG	CGTCTCCTAA	AAATTCCAAG	CGTTCATTGT	GTGAAATTTT	TAAGAGGCGG	11640
TGCTCATTTG	CATAACTCGT	ATGAGTAAAG	GCAGTTTCCA	GTAACCTTTT	GTCTGCAAAT	11700
TCGATTGCAA	AATGATTCTT	TAGTACAGTT	TGTAATTCTT	TCATACCAAC	CTCTTTCTAA	11760
CTGATAATAG	TCCTTTTTAT	TATATCAAAA	AAAGCCCCCT	GAGTCACTCT	AAAACGGGAC	11820
TGGAAAGCAT	TTGGGAATTC	TTTAGACAGA	GATTCTCAGT	TTTAGCGGCA	AATTTGGGTC	11880
AGGATAAAGA	AAAAAGCCCT	ATTAAAGGCT	TTTTAGGATG	TTTACATCCA	CCCTGAGGGA	11940
ATCGAACCCC	CATCTCAAGA	ACCGGAATCT	TACGTGATAT	CCATTACACT	AAGGGTGGAA	12000
ACTTGTTTTA	TTATAACAGA	AATTTGCTCT	AATAACAAGT	TTTTTGGTCA	AAGACCCCGT	12060
CTTAGTGGGA	AGCATCCCCA	TTCCAGATGG	AGTTTTTCAC	GATCACATAA	TCAACGTGTT	12120
TAAGGTCAGC	AACCTGACGT	CCACCTGCAT	AAGAAATAGC	ACTTTGAAGG	TCTTGTTCCT	12180

876

TCTCAGTTAA AGTGTCTTGC AGATGACCTT TAGCAGGAAG CAAGATACGT TTGCCTTCCA	12240
CATTTTGTGTA AGCACCTTTT TGATATTGTG AGGCTGAACC ATAATATTCT TTGAACTGTT	12300
CACCATCGAC TTCAATCGTT TTCCCTGGAC TTTCAATGTG TCCTGCAAAG AGGGAACCAA	12360
TCATGATCAT GCTAGCACCG AAGCGGATAG ACTTAGCAAT ATCACCCTGA GTACGAATTC	12420
CTCCATCAGC GATAATCGGT TTACGCGCAG CCTTGGCACA CCAGCGTAGA GCAGCCAACT	12480
GCCAAACCACC TGTACCAAAA CCAGTCTTAA CCTTGGTGAT ACAAACCTTA CCAGGACCGA	12540
TTCCGACCTT AGTAGCATCC GCACCAGCAT TTTCCAATTC ACGCACAGCT TCTGGTGTTC	12600
CCACATTTCC AGCAATGACA AAGGTATCTG GCAATTCCTT CTGTATGTGT TGAATCATAG	12660
AAATCAGCT ATCCGCATGA CCATGAGCAA TATCAATAGT GATATACTCA GGAGTATCAG	12720
CCTTGAGCTG GCTAACAAAA TCATACTCAT AATCCTTAAC ACCGACAGAG ATAGAAGCAA	12780
TGAGCCCTTG ATTGTGCATT CGTTTAATAA AAGGAATGCG TCCTGCCTCA TCAAAACGGT	12840
GCATAATGTA GAAGTAACCA CCTTTAGCCA GTTGCTCTGC TACATTTTCA TCCAAAATCG	12900
TCTGCATATT CGCTGGCACA ACAGGTAGTT TAAAGGTGTG ATTTCTTAAA GTGACACTTG	12960
TATCCGCTTC TGCACGGCTT TTAATGACAC ATTTATTGG AATCAATTGA ATATCTTCGT	13020
AATCAAAAT TGGAATTCA TTAAACATAT CGATGTCTCG TTTCTTTTGT AATGACCTAC	13080
CTATGCTCTT GCATCACTAC GCCTTTTCCG ACGTTTCCTG G	13121

(2) INFORMATION FOR SEQ ID NO: 127:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9578 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 127:

CCGAATGCAA TGTTTACGGT TGAACCTGAA AATGGACATC AGATTTTAGC AACAGTTTCT	60
GGTAAAATTC GTAAAACTA TATTCGTATT TTAGCGGAG ATCGTGTAC TGTCGAAATG	120
AGTCCATATG ACTTGACACG TGGACGTATC ACTTACCGCT TTAAATAATC GAAAACTTG	180
GAGGGATAAG AAATGAAAGT AAGACCATCG GTCAAACCAA TTTGCGAATA CTGTAAAGTT	240
ATTCGTCGTA ATGGTCGTGT TATGGTAATT TGCCAGCAA ATCCAAAACA CAAACAACGT	300
CAAGGATAAG ATAGAAAGGA GAAACATGG CTCGTATTGC TGGAGTTGAT ATTCCAAATG	360
ACAAACGCGT AGTAATCTCA TTGACTTATG TTTATGGTAT CGGACTTGCA ACATCTAAGA	420
AAATTTTGGC TGCTGCTGGA ATCTCAGAAG ATGTTCTGTG ACGTGATCTT ACATCAGATC	480

877

AAGAAGATGC TATCCGTCGT GAAGTGGATG CAATCAAAGT TGAAGGTGAC CTTCGTCGTG	540
AAGTAAACTT GAACATCAAA CGTTTGATGG AAATCGGTTC ATACCGTGGT ATCCGTCACC	600
GTCGTGGACT TCCTGTCCGT GGACAAAACA CTAAAAACAA CGCCCGCACT CGTAAAGGTA	660
AAGCTGTTGC GATTGCTGGT AAGAAAAAAT AATATAGGAG GTAAAAGTCT TGGCTAAACC	720
AACACGTAAA CGTCGTGTGA AAAAGAATAT CGAATCTGGT ATTGCTCATA TTCACGCTAC	780
ATTTAATAAC ACTATGTTA TGATTACTGA TGTGCATGGT AATGCAATTG CTGGTTCATC	840
AGCTGGTGCT CTGGTTTCA AAGGTTCCTG TAAATCTACA CCATTCGCTG CTCAAATGGC	900
TTCTGAAGCT GCTGTAAAT CTGCACAAGA ACACGGTCTT AAATCAGTTG AAGTTACTGT	960
AAAAGGTCCA GGTTCGTGGT GTGAGTCAGC TATTCGTGCG CTGCTGCCG CTGGTCTTGA	1020
AGTAACAGCA ATTCGTGATG TGACTCCAGT GCCACACAAT GGTGCTCGTC CTCCAAAACG	1080
TCGCCGTGTA TAATCATCGC ATTACACTGC TTTTCGTTTA AGAGGGAGTA ACTAAATGAT	1140
CGAGTTTGAA AAACCAAATA TAACAAAAT TGATGAAAAT AAAGATTATG GCAAGTTTGT	1200
AATCGAACCA CTGGAACGTG GCTACGGTAC AACTCTTGGT AACTCTCTTC GTCGTGTACT	1260
TCTAGCTTCT CTACCAGGAG CAGCTGTGAC ATCTATCAAC ATTGATGGTG TGTTACATGA	1320
GTTTGACACA GTTCCAGGTG TTCGTGAAGA CGTGATGCAA ATCATTCTGA ACATTAAAGG	1380
AATTGCAGTG AAATCGTACG TTGAAGACGA AAAAATCATC GAACTGGATG TTGAAGGTCC	1440
TGCTGAAGTA ACAGCTGGTG ACATTTTGAC AGATAGCGAT ATTGAAATTG TAAATCCAGA	1500
TCATTATCTC TTTACAATCG GTGAAGGTTT TTCTCTAAAA GCGACTATGA CTGTTAACAG	1560
TGGTCGTGGA TATGTACCTG CTGATGAAAA TAAAAAGGAT AATGCACCAG TTGGAACACT	1620
TGCTGTAGAT TCTATTTATA CACCAGTTAC AAAAGTCAAC TATCAAGTGG AACCTGCTCG	1680
TGTAGGTAGC AATGATGGTT TCGACAAATT AACCCCTGAA ATCTTGACAA ATGGAACAAT	1740
TATTCCAGAA GATGCTTTAG GGCTTTCAGC ACGTATTTTG ACAGAACATC TTGATTTGTT	1800
TACAAATCTT ACTGAGATTG CTAAGTCAAC TGAAGTGATG AAAGAAGCTG ATACTGAATC	1860
TGACGACCGT ATTTTAGATC GTACGATTGA GGAAGTGGAC TTGTCTGTGC GTTCATACAA	1920
CTGTTTAAAA CGTGCCGGTA TCAATACTGT GCATGATTTG ACAGAAAAAT CTGAAGCAGA	1980
GATGATGAAA GTACGAAATC TTGGACGCAA GAGTTTGGAA GAAGTGAAAC TCAAATCAT	2040
TGATTTGGGT CTGGATTAA AAGATAAATA AAGGAGGAAT ACATGGCTTA CCGTAAACTA	2100
GGACGCACTA GCTCACAACG TAAAGCAATG CTTCCGATT TGACAACTGA CCTTTTGATC	2160
AACGAATCAA TCGTGACAAC TGAAGCTCGT GCTAAAGAAA TCCGTAAAAA TGTGAAAAA	2220

878

ATGATTACTC TAGGTAAACG TGGTGATTTG CATGCACGTC GTCAAGCAGC TGCTTTCGTA	2280
CGTAATGAAA TCGCATCTGA AAAGTATGAT GAAGCAACTG ATAAGTACAC TTCTACTACA	2340
GCACTTCAAA AATTGTTCTC AGAAATCGCA CCTCGTTATG CTGAACGTAA CGGTGGATAC	2400
ACTCGTATCC TTAAGTCTGA ATCAGTCGCT GGTGATGCAG CGCCAATGGC GATCATCGAA	2460
TTAGTATAAA ATCATCAATT TTGTTGAGTG TTATGATGAT GGAGTCTTGT GCTCTTAGTC	2520
TAGCTCTGGT CTACCGCTAG GATTTTCGGTC CTAGCGGGAA CACTCATCAT AAGTTGGGAT	2580
AGTAGACGCT TGTTTACGAA ATTGTTTTTT TCTTAAGAAC AACTTCGTAA GCAGGCGTTT	2640
TTGAGTATTT TCGTTAGAAT TATGCTATAC TATTTGAAAA GAATCCTGTT TAATGTTAAG	2700
GTTTCTTATT TTAAGAAGAA TTGGAGTTTA CTTATGAAAG CCATTATAAC TGTGTTGGT	2760
AAAGATAAAT CTGGAATTGT TGCAGGTGTT TCTGGTAAAA TTGCAGAATT AGGATTGAAT	2820
ATTGACGATA TCTCTCAAAC TGTCTTGGAT GAATATTTTA CGATGATGGC TGTGTATCT	2880
AGTGATGAAA AGCAAGATTT TACCTATCTT CGTAATGAAT TTGAAGCTTT TGGGCAAACT	2940
TTGAATGTAA AAATCAATAT TCAGAGTGCA GCGATTTTCG AAGCTATGTA TAATATCTAG	3000
GAGGTATCA TGGATATTAG ACAAGTACT GAAACCATCG CCATGATTGA GGAGCAAAAC	3060
TTGATATTA GAACCATAC CATGGGGATT TCTCTTTTGG ACTGTATCGA TCCAGATATC	3120
AATCGTGCTG CGGAGAAAAT CTATCAAAAA ATTACGACAA AGGCGGCTAA TTTAGTAGCT	3180
GTTGGTGATG AAATTGCGGC TGAGTTGGGA ATTCTATCG TTAATAAGCG TGTATCGGTG	3240
ACACCTATTT CTCTGATTGG GGCAGCGACA GATGCGACGG ACTACGTGGT TCTGGCAAAA	3300
GCGCTTGATA AGGCTGCGAA AGAGATTGGT GTGGACTTTA TTGGTGGTTT TTCTGCCTTA	3360
GTACAAAAG GTTATCAAAA GGGAGATGAG ATTCTCATCA ATTCCATTCC TCGCGCTTTG	3420
GCTGAGACGG ATAAGTCTG CTCGTCAGTC AATATCGGCT CAACCAAGTC TGGTATTAAT	3480
ATGACGCTG TGGCAGATAT GGGACGAATT ATCAAGGAAA CAGCAAATCT TTCAGATATG	3540
GGAGTGCCCA AGTTGGTTGT ATTCGCTAAT GCTGTTGAGG ACAATCCATT TATGGCGGGT	3600
GCCTTTCATG GTGTTGGGGA AGCAGATGTT ATCATCAATG TCGGAGTTTC TGGTCCTGGT	3660
GTTGTGAAAC GTGCTTTGGA AAAAGTTCGT GGACAGAGCT TTGATGTAGT AGCCGAAACA	3720
GTTAAGAAAA CTGCCTTTAA AATCACTCGT ATCGGTCAAT TGTTGGTCA AATGGCCAGT	3780
GAGAGACTGG GTGTGGAGTT TGGTATTGTG GACTTGAGTT TGGCACCAAC CCCTGCGGTT	3840
GGAGACTCTG TGGCACGTGT CCTTGAGGAA ATGGGGCTAG AAACAGTTGG CACGCATGGA	3900
ACGACGCTG CCTTGGCCCT CTTGAACGAC CAAGTTAAAA AGGGTGGAGT GATGGCCCTG	3960
AACCAAGTCG GTGGTTTATC TGGTGCCTTT ATCCCTGTTT CTGAGGATGA AGGAATGATT	4020

GCTGCAGTGC AAAATGGCTC TCTTAATTTA GAAAAACTAG AAGCTATGAC GGCTATCTGT	4080
TCTGTTGGAT TGGATATGAT TGCCATCCCA GAAGATACGC CTGCTGAAAC TATTGCGGCT	4140
ATGATTGCGG ATGAAGCAGC AATCGGTGTT ATCAACATGA AAACAACAGC TGTTCTGTATC	4200
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TTAGACGTGT ATACTATAAT CATTAAATAA AGACCTCCTA ATATTATTG AAACAGATAA	4440
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CATGGAAGA CCATGTTTAA CACGATTGGT CGCGCGCAAG GTTGGAGCGA TACTCCCTTA	4680
ACTGCTGAAG GTGAACGAGG GATTCAAGAG TTAGGAATCG GTTTGCGAGA ATCTGATCTA	4740
CAGTTTGAGC GTGCTTATTC GAGTGATTCT GGTCTGACCA TTCAGACCAT GGGAATTATC	4800
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CGTATCTTTA ATGTGGACCA CGTTCACCAA TTGTCTTATG CTGAACTGGC TGAGGGCTTG	4980
GTAGAGGTCG ATACAGCTGG TTGGGCTGAA GGCTGGGAAA AACTCAGTGG CCGAATCAAG	5040
GAAGGCTTTG AAATGATTGC AAAAGAAATG GAAGATCAAG GTGGAGGTAA CGCCCTTGTT	5100
GTCAGCCATG GAATGACTAT TGAACCAT TTTTATCTGA TTAATGGCAT GCATCCGCAT	5160
GGTCTGGATA ATGGTAGCGT GACAACTCCTT GAATATGAGG ACGGCCAGTT TAGGGTTGAA	5220
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AAAACAGCCG AGGGCACTCC TTTCGGCTGT TTTTGATGTG GAAAACTAAA GTGTAATGCT	5400
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AGTCATTGTT CTTGTTTGA CATTGTAGAG GAGGATAGAA GTAGAGAGTT TTGAAATCAT	5580
TGTGACTCAA GATAAGATGG CTCAGAAAT GATACCAGAT AGCATCATG GAGTTGTAAT	5640
CTTAGCAAAG GTATTGAGAC GACTACTTCC TAAGCTTCA GCAGCTTCTT CAATACTTGG	5700
TGCTATTGTT TGTAAGCTAG CAACAGATGA GCGAATAGTA TAAGGTAATC TTCTGGCAGA	5760

880

TAGAGACATA ATCAAGATGA AAGCAGTCCC TGTAATCATA AGAAATCCAC TTCCAAATAG	5820
ACCAGTATTG AAGGAAGAAA TGAAGGCAAT CCCTAGAACG GTTCCTGGTA CAATATAAGG	5880
TACCATACTG AGGCTGTCAA TTAAGTTTGT AAACAAATTC CGTTTCTAA CGGCTAGGTA	5940
GGAGATAAAT GTCGCAAATA GAACAAC TAG AACTAAGGCA ATCAAAGGGA TACGAATGGT	6000
ATTGAAAATA GCAGATCCCA TACGATGGAA AGCTACCTTG TAACTGTTTG GAGAATAACC	6060
TTTAACAGAT ACCATACCTG ATGTTTTTAG GAAAGAGGTA TAAATTAAGT AGATTTGAGG	6120
TAAACAGAG ATAAAGATAA TTCCGTAGAC TGTTGCATAA ATGGCAGCCA TTTTTCCTTT	6180
TGTAGTTTTT TTAGGCTCAA TTGGATGGAG CAGATTCATG CTGAACTGT AGCGGTTTGC	6240
AATGTGTTTT TGGATAAGGA AAATTGCCAA GGCAATGATA ATCGCCATAA TTGCAAAAGC	6300
AGAATTTCTT CCAACCTCGC TAATAAATTG GGTATAAATC AGGACAGGGA AAGTCCGATA	6360
CCCTTCGCCA ATCAACATAG GCGTTCCAAA GTCTGAGAAT GCTCTCATAA ATACAAGCAA	6420
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TTTATGATAG AGTTCTTTTG GTCGGCCGAT TTGTTGGATC ACCCCATCTT TCATAACAGC	7500
AAATTGGTCT GAAATAGCCA TGGCTTCTTC TTGGTCGTGG GTTACATAAA CAGTTGTAAT	7560

881

TCCCACTTCG	TGTTGGATTT	CTCGGATGGC	TTGACGCATA	TCCAAGCGAA	GTTTGGCCTC	7620
CAGATTACTA	AGTGGCTCGT	CCATGAGGAG	AACACTTGGA	TTAACCGCTA	AGGCGCATGC	7680
CAAGGTGACA	CGTTGTTGTT	GTCCACCACT	GAGTTTATCG	GGCTTTCGAT	CCGCATATTG	7740
AGCAATTTGC	ATGAGTTCAA	GATACTTGTT	GGTCTGTTGA	ATCAATTCTT	CTTTTGGAAC	7800
CTTCTTTTGC	ATAAGACCAA	AAGCAACGTT	GTCTCGGACA	GTCAAATGTG	GGAAAATAGC	7860
GTAGTTTTGG	AAAACCATCC	CGATATTGCG	TTTGCTGGGT	TCCATATTAT	TGATTTTTGT	7920
ATCATCGAAG	TAAAATTCTC	CACCTTCGAT	ACTGTTGAAA	CCTGCAATCA	TACGAAGAAG	7980
GGTCGTTTTF	CCACATCCTG	AAGCTCCAAG	AAGGGTAAAG	AGACTTCCTT	TTGGAATTGT	8040
AATGTTCAAA	TTCTCAATAA	CAGGGACATC	GTGGTAGATT	TTTTTGGCGT	TAATAATTTT	8100
GATCTCACTC	ATAGTGAACC	TCTTTTACTG	TTTAGATTGG	ATATCTGTAA	AGACTTCGTT	8160
GTATTTCTTA	ACGATATCTG	ATTTATTCTT	GATGACATAA	TCATAATCTT	CAGTGAGTGT	8220
TTTGATTTTG	TCAATTGGTT	TCATGTTTTT	GCTTGTTTTA	GCATTTTTAC	GAACAGGACG	8280
GTTAGTAGTG	GTTGTACCAA	GTGTATCTTG	TACTTCTTGA	GAGATAATAA	AATCGATAAA	8340
TTTCTTGGCA	TTTTCCATAT	TTTTAGATTT	TTTAACGATA	GCAGCACTAG	CAGGTAGGAA	8400
GACGGTTCCT	TCTTTTGGAT	AGACTACCTT	AATGTTAGCT	CCGTCATTTA	AGAGTTTAAC	8460
TGCTGGATCT	TCATAAGAGA	GACCAACAGC	CATTTCTCCA	TCAGCGACTA	CTTTATAGAC	8520
ACTAGATGAA	CTTGAAACGA	TTTTACCATC	AATAAGTGTG	AAAAGATCTT	TTACATAAGA	8580
CCAAGCCTTA	TCATCTTTGT	AACCACCTTG	AGCTTGTAGC	ATATTTGTTA	ATTGAGCAAA	8640
GGCGCTAGAA	GAGTTTGCTG	GGTCAGCAGT	TGCGATTTTT	CCTTTTAGTT	CAGGTTTGAA	8700
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ATAAGAACCA	CCAAAGATAA	CATCAGCTAC	AGGAACTTCT	TTTTCTGACT	CTAGTTTTTT	8940
GAAAAGTTCT	CCAGTACCAG	CTTGAATCAG	TTCTACTTTG	ATACCATATT	TTTCTTCAAA	9000
GGCAGGAATA	GTTGCTCCAA	TTAAGCCCTC	TGAGTTTGGT	GAATAAACGA	CTAGCGAACC	9060
GCCGTCTCCT	TTATCAGATG	AACTGTCATC	GGCAGATTCA	TTAGAAGAAC	AAGCAGCATA	9120
ATACATCCAT	TTCTTTTTCA	TGATGGATAC	CTCCGTTGTG	TTATTTAAGT	TTATTTTAAA	9180
ACAATGTAAG	CGTTTTTAAA	ACATACAATT	CTATTCTATA	GTGTATTGAA	TCTATAACAG	9240
TACACTTTGA	CTGCTAAAAT	ATTTCTATAA	ATTAAATTGA	CTTTCCTGAT	AGAGATGTTT	9300

882

ACATCTTATT TCAATTCAC TATATTAGAGT AAAATTCTCT AAAAAAGAA GAATAGCCTA	9360
TTTACTATT CTTCTGAGTG ATTCAATTC CTTGGGGAA ATATGGAGAT ACTTTTAAA	9420
TCCTGACAAA TGGTTGTTTC TTTTCTAAA TCGGTGATAC TGTATCGGAG AATCGCGTG	9480
AGGTCACAAA GGCTGCGATA GAGCTTCTAT GGAGAATTC TTTTGGAGA GATTTTAA	9540
AGGAATGAGA CATCCGCTAC CTCCTTGGAA GGTTTTGT	9578

(2) INFORMATION FOR SEQ ID NO: 128:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13440 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 128:

CGGGCTGTG TGACGATTCT TATTTCTATC TGTGTTATCT TTTGGGAAC TATTTGGGT	60
GTTGCTTGG CTTTGGGCA ACGTTCAAAG TTAAACCGC TTGTTGGTT GGCCAACCTG	120
TACGTTTGA TTTCCGTGG GACACCGATG ATGTTCAA TTATGATTGC CTTGCTCTT	180
ATGCATATCA ATGCTCCGAC TATTCAGATT GGAATTTTAG GTGTTGATT TTCGCGTCTG	240
ATTCCAGGA TTTGATTAT CTCTATGAAT AGTGGTGCTT ATGTTTGGG GACTGTTCTG	300
GCCGAATCA ATGCGGTTC AAAAGGTCAG CTAGAAGCG CTTATTCCT AGGGATTCGT	360
CCTAAAAATG CGATGCGTTA TGTGATTTTG CCACAAGCAG TCAAAAATAT CTTGCCAGCA	420
TTGGGGAACG AATTTATCAC CATATCAAG GACAGCTCCC TCTATCAGC TATGGGGTC	480
ATGGAGTTGT GGAATGGGC TACAACAGTT TCTACAACA CCTATCTACC TTTAACACCA	540
CTTTTATTTG CAGCATTTTA CTACTTGATT ATGACCTCTA TTCTGACAGT AGCCTTGAAA	600
GCTTTTGAAA AACATATGGG ACAAGGAGAT AAGAAATAAT GACAGAAACC TTGATAAAAA	660
TTGAAAATTT ACATAAATCC TTTGGAAAGA ATGAAGTATT GAAGGGCATC AACCTCGAGA	720
TTAAAAGAGG AGAAGTTGTC GTTATCATCG GTCCTTCAGG GAGCGGAAA TCTACCTTGC	780
TTGCTCTAT GAATTTGTTG GAAGAAGCAA CCAAGGGGAA GGTATCTTT GAGGGAGTCG	840
ATATTACGGA CAAGAAGAAT GACCTGTTTG CCATGCGTGA GAAGATGGGC ATGGTTTTC	900
AACAATTCAA TCTCTTCCT AATATGACTG TGATGGAAAA TATCACCTTG TCCCCTATCA	960
AGACAAAAGG TGACAGTAAG GCCGTGTCAG AGAAAAGAGC TCAGGAACCT TTGAAAAAG	1020
TTGGTTTGCC AGATAAGGCA GACGCTTATC CACAGAGTTT GTCAGGTGGC CAGCAACAGC	1080
GGATTGCCAT CGCGCGTGGG TTGGCTATGG AACCAGATGT TTTGCTCTTT GACGAGCCAA	1140

883

CTTCAGCCCT AGATCCTGAG ATGGTTGGAG AAGTTCCTGGC TGTATGCAA GATCTAGCCA	1200
AGTCAGGAAT GACCATGGTT ATCGTAACAC ATGAGATGGG ATTTGCCCGT GAGGTGGCAG	1260
ATCGTGTCTAT CTTTATGGCA GACGGTGTGG TTGTTGAAGA CGGAACACCT GAGCAGATTT	1320
TTGAACAAAC CCAAGGACAA AGGACTAAAG ACTTCTTGAG TAAGGTTTTA TAAGTTAGCT	1380
TTGTTTAGCT ATTTGTAGCC AGCTTTAAAC GTTAAAGAGA AGATTAGTGA AAAGCTCAAC	1440
CAGAGCTTTT TCTTATAGTT TAAAGCTATA GGATTGCCTA GGAAAGAAGT GTTAGAGCTA	1500
CATTGTATTT TTTGGTATAA TTAAAGATAT TTGTAAGAAA AGAGAAGTGA TATGACACAG	1560
ATTATTGATG GGAAAGCTTT AGCGGCCAAA TTGCAGGGGC AGTTGGCTGA AAAGACTGCA	1620
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CCAGCCAGCC AAGTCTACGT TCGCAACAAG GAGAGGTGAG CCCTTGCGGC TGCTTTCCGT	1740
AGCGAAGTAG TACGGGTTC AGAGACCATT ACTCAAGAGG AATTGTTAGA CCTGATTGCT	1800
AAATACAATC AGGATCCAGC TTGGCATGGG ATTTTGGTTC AGTTGCCATT ACCAAAACAC	1860
ATTGATGAAG AGGCGGTTCT ATTGGCTATT GACCCAGAAA AGGATGTGGA TGCTTTCCAT	1920
CCTCTAAACA TGGGGCGTCT TTGGTCTGGT CATCCAGTCA TGATTCCTTC GACACCGCA	1980
GGAATTATGG AAATGTTCCA TGAATATGGG ATTGACTTGG AAGGTAAAAA TGCAGTCGTC	2040
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ACAGTAACCT TGACTCACTC ACGTACTCAT AATCTTTCCA AGGTGGCTGC AAAAGCAGAT	2160
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GCGGTAGTCA TTGACGTTGG GATGAACCGC GATGAAAATG GTAAGCTCTG TGGGGATGTT	2280
GATTATGAGG CGGTGCCCC ACTTGCTAGC CACATTACGC CAGTCCCTGG AGGTGTCGGT	2340
CCTATGACCA TTAATATGCT GATGGAGCAA ACCTATCAGG CAGCACTTAG GACATTGGAT	2400
AGAAAATAAG ATAAAAATTT TCTGAGGAAA GTGTATTTTC TATAGCTATA TCTAAAATGA	2460
TAGAAATGAA TATTAAATTT TAGAAATAAG TTTATAAAG GAGGTTTGCG CCTCCTTTT	2520
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TACAATGGGA TGGAAATATAC TACTTAGCAC TAATTGATTA TCCAAATATT CAAGAGTGGG	2640
AATTAGAAAA AATTGCTAAA TTTATAGCTT ACGAAAAACT TCATAAACGT CAAACAAGTA	2700
TTGAGTGTGC TGATTCTTGT TTAAAAAAG AAATTTTAGA TTACATCTGT CAGCATCCCT	2760
TTCTGCCACC ATTTACTCCT ACAGATAAAA GAGTAGCCTC GACTTATGAC CTACATAAGA	2820
GGTAGTGAC TTCAGACTAC TGTAAGTCATA CTACGACTAT AGATGCAGCG ATTTCTATTT	2880

884

TTAAACTGG TCGTCTTTTA TCTGCTGTGA AAGCCTTTGG GCGAGATGCT GAGGAGTTGG	2940
TTTGGATAG TCGAAATGCT GCATCTGATC CGATAGATTA TTTGACTAT GTCATGTTAG	3000
GGTGGTCAAA TACAAGTTCT GGTATCGAT TGGCGATGGA GCGTTTATTA GGTCGAGCTC	3060
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ACATGCTTAA TTTATTAAGT GAGTTGTATA TTTGCATTAT TCCAACATCAT AATAAGAGCC	3240
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885

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AGACTTTGTC GATGTGACAG TCGACGGGGC GGATGAAGTG GATAGTCAGT TTAATGGAAT	4800
CAAAGGCGGT GGTGGTGCCC TTCTCATGGA AAAGGTGGTC GCAACACCAT CAAAAGAATA	4860
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CTAAATTTAA TCGTATTCAT TTGGTGGTAC TGGATTCTGT AGGAATCGGT GCAGCACCAG	5280
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CTGTTGCCGA TAACTTTGGT GTGGAAACTG CTATGATTGG GGAAAGTTTC TTAGATAAAT	6420

886

TGGTATAAGA TGACGCGCTA TGCTTTGCTG GTGAGAGGTA TCAATGTTGG TGGTAAGAAT	6480
AAGGTCGTCA TGGCGGAGCT TCGTCAAGAA TTGACAAACT TGGGACTGGA AAAGGTTGAG	6540
AGCTACATCA ATAGTGGCAA TATTTTCTTT ACTTCGATAG ATTCCAAAGC CCAATTGGTT	6600
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AGTCTAGAGG ACTTTGAGGC GGAACCTGAA AATCTACCAG CTTGGTGGAG CAGAGACTTG	6720
GCACGAAAAG ATTTTCTCTT TTACACTGAG GGTTCGGATG TGGACCAAGT CATCGCGACA	6780
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GGGAAATTTT CTGAAGAATC CTATTCTAAG ACTGCCTATC ATAAGTACTT GCTGAAGGTG	6900
CCTTCTACC GCCACATTAC TATTGTAAT GCTAAAACCT TTGACAAAAT TGGTCAAATG	6960
CTAAAAAAT AATAAAGGAG ACACACAATG ACATTTTAA ACAAAATCCA TGAACTGCT	7020
ACTTCTGA AAGAAAGGG AATTGCAGCC CTTGAGTTCG GTCTAATCCT TGGATCAGGA	7080
CTTGGAGAAT TGGCAGAAGA AATCGAAAAT CCAGTTGTAG TAGACTATGC TGAGATTCCA	7140
AACTGGGGCC GTTCAACAGT AGTCGGTCAT GCTGGTAAAT TGGTATATGG TGAAGTGGCA	7200
GGTCGCAAGG TCTTGCTCT TCAAGGCGT TTCCATTCT ATGAAGGAA TCCTCTGGAA	7260
GTGGTGACTT TCCCAGTTCG TGTGATGAAA GTTCTTGAT GTGAAGGTGT TATTGTAACC	7320
AATGCAGCTG GCGGTATCGG ATTTGGTCCT GGTACCTTGA TGGCTATCTC AGACCATATC	7380
AACATGACGG GGCAAAATCC ATTGATGGGT GAAAACCTGG ATGACTTTGG CCCACGTTTC	7440
CCAGATATGT CTAGGGCCTA CACACCAGAA TACCGTGCCA CTGCCCATGA AGTGGCTAAA	7500
AACTTAATA TCAAGCTTGA TGAAGGTGTC TATATCGGAG TTACTGGTCC GACTTATGAA	7560
ACACCAGCAG AAATTCGTTT CTATAAGACA CTGGGAGCAG ATGCAGTTGG TATGTCTACG	7620
GTTCCTGAAG TTATCGTGGC AGCCCACTCT GGCTTGAAAG TTCTGGAAT TTCATGTATC	7680
ACTAACTTTG CGGCCGTTT CCAAGAAGAA CTCAATCACG AAGAAGTTGT AGAAGTGAAT	7740
GAACGTGTTA AAGGTGATTT CAAAGGCTTG CTTAAAGCGA TTCTTGCTGA ATTGTAAGAA	7800
AAAAGATTTA AAAGGGGAG TGCCTCTGTT TTTTCAGGAT TGAAGTGCCTA TCCGATTAA	7860
AGAAGAAACA GAGGAATACT ATGAGCTTCT TCCTGCTCTT ATAAGTAAA GAAGCGGAAG	7920
AATAGGTATG TCTGATCTGA TAGCCAGCAT TGTGAAAGAC AAGATTCTAG GATACTAGCA	7980
TTAGCTTCCT AGCCAAGCAG ACTAGTATGA TAAGGAGAGA TGAGAATGAA TTGACTTTCT	8040
GAATTTCTCA GTCTTATCAT ATATAGCACA ATGAGATTTC GCTTGAGTCT GCTTGTAAT	8100
AAACGAAAAG AAAGATAAGA AATAATGAAA ATTGGTCAAC GAATTATGCG CTTTGGCATA	8160
AAAAATTAAG TATCGGAGTT GTATCTGTTG TAGTCGGCTT TGATTTCTAG CTCCAGCTGG	8220

887

AATTTTCAGCC	AATGAAGTAA	AGCAAGATGT	AACATCTGAA	GTGGTAATAG	GTGTGCTAGA	8280
TTCTAAGGAG	GAATTGAAAG	AGTCAGAAAA	TGATGCTCCA	AAACTAGAAA	CTCCTCTTAG	8340
AGAGGAGCCA	AGACTAGCTC	CTCAAACGCT	TCCGGAAGCA	AGTGAAGTTC	TTGAAAACAA	8400
AAGGGAAGAG	TCAAAAGTAG	AGATAACATA	ACCAGCTCAA	GCGGATGATA	TCCGCAAGGT	8460
TGTTGGGGAA	TTAGCCAAGG	ATATAAGTAT	TACTAAGTTG	TATATGACAG	GTCAATCTCT	8520
TGGATGTTAC	CTAGCTCAGA	TTGCAGCGGT	TGAAGCTTAC	CAAAAATATC	CTGATTTTTA	8580
TAACCATGTA	TTGAGGAAAG	TGACAACTTT	CAGTGCTCCT	AAAGTGATTA	CTTCCAGAAC	8640
TGTTTGGAAT	GCTAAGAATG	GTTCCTGGGA	TGTTGGTTTG	GAAAGTCGTA	AATTAGCTGT	8700
TAGTGAAAA	ATTAAGCATT	ATGTGGTTGA	TAATGACAAAT	GTGTGACTC	CCTTGATTCA	8760
TAATAATCGT	GATATTGTTA	CATTTACAGG	TAATTCACGC	TTTAAACACC	GTTCTCGTGG	8820
CTATTTTGAA	AGTCCAATGA	ATGATATTC	TAACTTTAAT	ATTGGTAAAC	AAGCTACCTT	8880
GGATAAACAT	GGTTATCGTG	ATCCGAAATT	GGATAAAGTG	CGATTCTTTA	AGAAACAGGC	8940
TCTGCCTCGA	TCTTCTAGTC	AACCAAGCGC	TGAACCAATG	GAAAATATTG	CCTCAGGAAA	9000
ACAGGTTACT	CAAAGTTCGA	CAGCTTTCGG	AGGAGATGCT	AGAAGAGCTG	TGGATGGCAA	9060
AGTCGATGGT	AACTATGGTC	ACAAATCTGT	CACATACATA	AACTTCCAAT	CTAAGCCTTG	9120
GTGGCAAGTA	GATTTGGCTA	AAGAAGAAAC	CATTCGCCAA	ATCAATATTT	ACAACCGAAC	9180
AGACACTGCC	CAGGATAGAT	TGGCAAACCT	TGATGTCTAT	CTTTTAGACA	GTTCTGGTAA	9240
AGAAATTGAG	TGAAAACGTA	TAACATCTCC	TAAAGATGTG	TCAGCACAAA	TTACGATTAA	9300
CCATAAAAA	GCGCGCTATG	TTCGGATTGA	GCTAGAAGGC	TATAATGCCC	TCAGTCTTGC	9360
AGAAGTTGAA	GTTTCTCTGT	TTATAGCTAC	GAATGCTGAA	ACGGCGACAC	AAGTTTCTAA	9420
GCCAGTTCAA	CCAATCAGTC	AGACTCCTGT	GAAGGATAAA	ACATTGACAA	TTCAACACAG	9480
TGGAGCTTAC	ATTGCCCGCT	ACTCCATAAC	TTGGGAAGAA	GTTCCAGTAG	ATAAAGATGG	9540
AAACCAAGTT	GTTCTGATGC	ATTCTTGGGA	AGGAAGCGGT	CGCAACCAGA	CTGCAGGTTT	9600
TGTCTTCAAC	CTCCCAATCA	AAGAAAATAT	GAGAAATCTG	CGAGTTAAGA	TTGAGAAAAA	9660
GACGGGCCTA	CTATGGAATA	GATGGCAAAC	AATCTATGAA	AACAGACCAA	TTTGTAGCTCA	9720
ACCCACCGT	AAAATTACCC	ATTGGGGTAC	GACATTGAAT	TCCAAGGTGA	GTGACGATGA	9780
TGTCTTGTA	TCTGATGGTA	GAATGACAGT	TAGTTTGTCT	AGTTTATAAG	AAAGTACTAC	9840
CTGAGCTTGA	ATAGGACTCA	GGTAGCTCTC	TATGAAAGAA	CAAAATTAAT	ACTCAATGAA	9900
AATCAAAGAG	CAAACTAAGA	AACTAGCCGC	AGGTTGCTCA	AAGCACTGCT	TTGAGGTTGT	9960

888

AGATAAGACT GACGAAGTCA GTCACATATA TAATCCAAGG CGACGTTGAC GTGGTTTGAA	10020
GAGATTTTCG AAGAGTATAA ACAGAAAGGT AGAGCGCGTG TTCTAATTG AACACGAGTA	10080
GAAAACTTTT CTAAAAACAA AAACGAAAGG ATGGGTAAAC TGTATTCGCT GAACTGAATA	10140
CGGGCGACTC TCCTCTAAAT CAAAATTAAAG AAAGGAATTG ACCCCACCCT AAAAGTAGTG	10200
GGAAAAAGAT AGTTGATCTA GCGAGCATCG CTCCTGCGC CCAACTCCTA TTTTCCCTTC	10260
GCTTTTGTGAT GGGTTTGTA TCTTCTCAA TATAAAATAT AAAATAAAGA AAGGTAGAGC	10320
GTGTGTTTGT ATTTGAACAC GAGCGGAAAA CTCGGAAAT AGATAATCTG ACTGAAAAAT	10380
CAGGATTTCT CGTCAGGTTT CTAATTTTCA GTCGTTTCT TCTCGCTCTT TGTATCATAA	10440
ATTATGTCTA TCCATATTGC TGCTCAGCAG GGTGAAATTG CTGATAAAAT TCTTCTTCCT	10500
GGGGATCCTC TTCGTGCTAA GTTTATTGCG GAGAATTTCC TTGATGATGC TGTTTGTMTT	10560
AACGAAGTGC GTAACATGTT TGGTTACACT GGTACTTACA AGGGTCACTG TGTATCTGTC	10620
ATGGGAAGTG GGATGGGAAT GCCATCTATT TCGATTATG CGCGTGAGTT AATCGTAGAC	10680
TACGGTGTGA AGAAATTGAT TCGTGTGGGA ACTGCAGGTT CTTTGAATGA AGAGGTTTAT	10740
GTTCGTGAAT TAGTTTGGC GCAGGCGGCT GCAACCAACT CAAACATCGT TCGTAATGAC	10800
TGGCCACAGT ACGATTTTCC ACAAATTGCT AGCTTTGATT TGCTTGATAA AGCCTACCAT	10860
ATCGCCAAAA AACTTGGTAT GACTACTCAC GTTGGGAACG TTTTGTATC TGATGTCCTT	10920
TACTCAAATT ACTTTGAAAA GAATATCGAG CTTGGTAAAT GGGGAGTCAA GGCTGTGGAA	10980
ATGGAAGCAG CAGCTCTTTA CTATCTTGCT GCCCAATACC ATGTTGATGC GCTAGCTATC	11040
ATGACCATCT CTGATAGCTT GGTCAATCCA GACGAAGACA CAACTGCAGA AGAACGTCAA	11100
AATACCTTCA CTGATATGAT GAAGGTTGGT TTGGAAACCT TGATTGCAGA ATAATTATAG	11160
CCAAAAAGGG GCTCTTTGTC AACTGTAGTG GGTGAAAAA AAGCTAAGCT TGAGAAAGGA	11220
CAAATTTTCG CTTTCTTTT TTGATATTCA GGGCGATAAA AATCCGTTT TTGAAGTTT	11280
CAAAGTTCCG AAAACCAAAG GCATTGCGCT TGATAAGTTT GATGAGATTA TTGGTCGCTT	11340
CCAGTTTGGC ATTAGAATAG TGTAGTTGAA GGGCGTTGAC GATTTTCTCT TTGTTCTTTA	11400
GAAAGGTTT AAAGACAGTC TGAAAAAGAG GATGAACCTG CTTCAGATTG TCCTCAATGA	11460
GTCCGAAAAA TTTCTCAGG TCTTTGTTCT GAAAGTGAAA AAGTAAGAGT TGATAGATCT	11520
GATAGTGGTG TTTCAAGTCT TCTGAATAGC TTAAATCTT GTCAAGAATT TCTTTATTG	11580
TTAAGTGCAT GCGAAAAGTA GGGCGATAAA AACGTTTATC GCTsAATTTA CGACTATCCT	11640
GTTGGATGAG TTTCCAGTAA CGCTTGATAG CCTTGATTTC ATGAGATTTT CGTTCAAAC	11700
GATTCATAAT TTGAACACGA AAACGACTCA TGGCACGGCT GAGATGTTGG ATAATATGGA	11760

889

AACGATCTAG AACGATTTTA GCACACGGAA AAAGCTGTTT AGCCAAGTCA TAGTAAGGAC	11820
TAAACATATC CATCGTAATG ATTTTCACCT GACAACGAAC GGCTCTATCG TAGCGAAGAA	11880
AGTGATTTTCG GATGACAGCT TGTGTTCTGC CTTCAAGAAC AGTGATAATA TTAAGATTAT	11940
CAAAATCTTG CGCAATGAAA CTCATCTTTC CCTTAGTGAA GGCATACTCA TCCCAAGACA	12000
TAATCTTTGG AAGCCGAGAA AAATCATGCT CAAAGTGAAA GTCATTGAGC TTGCCAATGA	12060
CAGTTGAAGT TGAAATGGCC AGCTGATGGG CAATATCAGT CATAGAAATT TTTTCAATTA	12120
ACTTTTGAGC AATTTTGGG TTGATGATAC GAGGGATTG GTGATTTTTC TTTACCAGGG	12180
GAGTCTCAGC AACCATCATT TTTGAAsAGT GATAGCACCT GAAACGGCGT TTTCTAAGGA	12240
GAATTCTAGA AGGCATACCA GTTGTTCGA GGTAAGGGAT CTTAGACGGT TTTTGAAAGT	12300
CATTTTCTT CATTAGACTT CCACAATCAG GGCAAGATGG AGCCTCATAA TCCAGCTTAG	12360
CGATAATTTC TTTGTGGGTA TCCATATTGA TGATATCTAG AATCTTGATG TTTGGGTCTT	12420
TAATATCGAG CAGTTTGTG ATAAATGTA ATTGTTCCAT ATGATTCTTT CTAATGAGTT	12480
GTTTGTGCGC TTTTCATTAT AGGTCATATG GGACTTTTTT TCTACACAAA AATAGGCTCC	12540
ATAATATCTA TAGTGGATT ACCCACTACA AATATTATAG AGCCCAAAAA GGAAGCCCTT	12600
TATGAATTGT AGGACTTCCT TTTCTTATCC AGAAATTGAT CTAGCTCTCT CTGATTTTGA	12660
AGAATAGTGA CTTTATGTGA ATATTCTTGG CAAAGTTTTT GGTAATTTTC TTTTGTAGTT	12720
TTGCGGACGC CCATCCCAA GAATCCATCT GATAAACTCC CACTCAAAGC GTTCAGGGCA	12780
ATCTACCGCC ATACTTTCTC TGACTTTTCC ACGGTATTTA AGATAACGCT TAAAGGCTCT	12840
AAAGAGACAG GTCAATGGCG AAAAATTGAG AAAGATGATT TGGTCAGCTT CTTGCATTCTG	12900
TTCTTGGTAG TAGCACCAAG AATAATTACC ATCGATGACC CAAGCTTTAT GCTTGGTGAG	12960
AAAGTTTTTT ATCTCGGTTA ACATCCATTC GCAGTCACTG TCTTGCCAAC CAGGTTGAAA	13020
TTGGAGTGTG TCCATGTGCA GTTTTGAAT GGAGTAGTAG TTAGATAACT TTTCTGCTAT	13080
AGTTGACTTA CCAGAACCAG AATATCCGAT AATTGCGATT TTCATTTTCT ACCTTTTCCT	13140
ATTTGGAGAC AAAAAACAG CCTCTATGGA CTGTTTCTTA TTTAACAAGT TTAGCTGAAA	13200
GACGAGCTTT ATCGCGGCTT GCTTTGTTTT TGTGAATCAA ACCTTTAGTT TCTGCTTTAT	13260
CGATAGCTGA GCTAGCAGCA CGGAAAAGTT CTTCAGATGG GTTTGCTTCG AAAGCTTTTA	13320
TAGCAGTACG CATAGCTGAT TTTTGAGCTG AGTTCTTTTC GATTCTGCTA ACGTTCAATT	13380
CAGCGCGTTT GATAGCTGAT TTAATGTTTG CCAATGGTCT TACCTCCATA TTTACTAACT	13440

(2) INFORMATION FOR SEQ ID NO: 129:

890

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8512 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 129:

CCTTTTTC	AAA	ACTAGAT	ACTAGTCTAT	CAAAAGTAGG	AAAGGGTTTC	AAGAAAATTG	60
ATTGGA	AATT	TTT	TGAAAAT	CATAGAACTA	TTAGCTAATC	CCTAGTATTG	120
ATA	GCTTCTT	TCAGGTCATC	TTGTAACTA	TTTCTCTGGT	CAAGTTGGAC	ATAGACTTCC	180
ACCAGACAGG	ATCTAAAGTT	GGAAAATTG	TAAAAATCCT	CCCTTTCTTC	TATCGGAAAA		240
TCAACAGTTT	TTATCCAAGA	AGCTACTTGT	TCTTGCTCCA	ACTTCCCTTG	TAAAAATAGGT		300
TCATAGATCA	CTCTTGCTAA	ACGCCAATCC	TCATCATCTG	TAAAGCGAAT	CGACATTCTT		360
TTAAATAGTT	GGCCAAGTAT	ATCAAATACT	TCATGAATC	TGTTTTTAGG	AAAGTCTGGA		420
TGACAAACCA	CCTCTGTCA	TAAATCGGCT	CCATGTGCAA	AAGCGTGAAC	CCAACCATAC		480
TGACTTGAGA	AACCCCTTGT	ATCCTTTTCT	TTTGAAAGAT	AGTGCAAGCC	TTGATTTAAA		540
AGGACATTAC	GAATTTCTGG	AGAAGGATTT	CCCAAATGAT	CAAACAACCA	CTGGATTCTT		600
TCCTGGTTAT	AATTTGGTTT	TTCTTCTGCT	ATTTTCTT	GTAAATCTTG	ATACATGGTC		660
AATACCTCTA	CATTTCTAGC	AACTGTTCAA	AAAGGCAGTC	TTAAATGACT	CAATATTGAA		720
TTCTCAATTA	AATACAATCT	GATATAAAAT	GACGTAAATA	ACTATCAATA	CCAGTTCTAC		780
AGTAAGTTCA	AATTTAACAT	CACGACCTTC	AACGACATTT	TTGAAAATAG	CTACAATAA		840
GACAAATAGA	ATGACGCTTA	ACAAGCCCAT	AAACATCATT	CTAAAAAATT	TTTCTATTCC		900
CCTACTCTCC	CAACTCAGCA	CTATAGGAGA	TAATCTGGTC	AACTGTGTCA	GACAAGAATT		960
GGATGGTATC	ACGGAGTGGT	TTGTCTGTTG	AAATATCAGC	ACCGATAATC	ATGGCTGACT		1020
CAAGTGGTGT	CTTGCTACCA	CCTGATTGGA	GGAGATTGAG	CCAGTCTTCA	GCTCCAGTTT		1080
CAGAATGTTT	TAGATGAAGG	TAACCAGCAG	TCGAGATAAC	TAGTCCTGCT	GAGTAAGTGT		1140
AACTATACAA	GCCCATATAG	TAGTGAGCTT	GGCGCATCCA	AGTCAGAGTT	GCATCATCGT		1200
CAATTTCAAT	AGCATCTCCC	CAGAAATCCG	TCAAACTTC	CTTCATAATG	CTGTTGAGCT		1260
TGCTTGCTCC	AAAGGTCTCC	CCTTCTTCAA	TCAATGTATA	CACCTTACGC	TGGAAGGCGG		1320
CTTCCAAGAG	GTGGGTGATA	AAGTTATGGA	AGTAGGTGTC	TGTCAAGCGA	TGAGCCAGAG		1380
CGAAGCGTTT	TTGACGTGGG	TCATTAGACT	GGTCTCCAA	GTAATCACTG	AGTAGCAATT		1440
CATTGAAGGT	TGACGGTGCT	TCAACATAGT	AGGTCGACAT	ATGGGCATTG	AAGTAACTTT		1500

891

GATGATTGTC TGAAAAGATG AATTGACCAG AATGCCCGAT TTCATGAATC AAGGTATAGA	1560
CATCGCTCAA ACGGCCTGTC CAGCTCATGA GTACATAAGG GTGTACGCGA TATGGGTCCG	1620
CCGCATAACC ACCGGAATCC TTGCCACTGT TAGCAGCAAA GTCCACCCAG CGCTCTTCTT	1680
GGTAACGAGC AACTTCCTGA CAATATTCCTT GCCCCAAAGG TTCTACCGAC TTCATGACCA	1740
AATCATAGGC ATCGTCAATA GTCACCTCAG GATTCAGGGC GCTGTCCAAG TCCAATTTCC	1800
AGTCTGCAAA GGTCACTCTT TCAAGACCAT TTACCTTGCC AACATGCTTG AGGTATCTCT	1860
GAGCGACTGG TGCAAAGTCC TTCATGATGA GGTCAATCTG GCGGTCAAAC ATGACACGGT	1920
CCACTTCTTG TTCAGCTAGA AGATAGTCAA AGACAGAGTC GTATCCCTTC ATATCAGCCA	1980
AGAGTTTPTC AGACTTGACC TGAGCCAGAT AGGCTGCTGC AGCCGTATTT TGGTGCTTAC	2040
GAAGTCCCTC TGAGAAGGAA CGGAAGGATT TCTCACGAAC CTCAGCATCC TCATGGTTTT	2100
GGTAGAAATT CTCATAGGTC ACAAAGCTGT TTTGTAGGT CTTGCCATGG GCTTCAAAGT	2160
CAGCCATTTT AAAATCCCCA GCTCGCATCT TAGTATAAAT GTCCTGCGGA CTGTAGAAAA	2220
CTTACCCGAG ATTTGTCAAG GCCTTCTCCA CATCTGCCCC TAAGTAGTGG GCTTTTTTGA	2280
TTTGTAGCTG ACGAATGGCA GCTGTTAAAT GTGGCAATTT ACCCAAACGG TCCAAGACTT	2340
CCTCATCTGC TGCCACCAAG GCATCGTCAA AGAAGGTCAA GGCTACGCTG GCATCTGTTT	2400
CAAATTCAT CCCAGCTTGG GCAATATTGG CAAATTCGTC ATTGCTATAG TCCGTCGTCT	2460
GAGGCATAAA ACCATAGTTG CCAATATGGC TCATCTGAAT GTAGATCTGT TCCAATTCGG	2520
CAAAGGCCTT CTCGAAATCC TCAAAGTGT GAAGATTGCC CTTGTAATCA CGGCTAAACT	2580
GGTGTATGTC TTCGCGAGCT TTCTCGATTG CACGCAAGAA ATCCTCACGG TCTTGGTATA	2640
GGGCTGTIAA GTCCAGAGT TCCTTCTCTG GAAATTCTGA ACGGTGTTTT TGTTCATTT	2700
TCTTCCTCTT ATTTCTCTAA TTCTACTAAA AACTAAGGG CTGATAAAGC GTAAAGCGGT	2760
GCTGTTTCTG CTCGCAAAAT ACGAGGACCT AGGCCTGCCA AAACGGCTCC TTTAGCTTCA	2820
AAACTTTCGA TTTCTGCAGG TGAGAGACCG CCTTCTGGAC CAAAGATAAA GAGCAGTTTG	2880
GCTCCTGTTT CAAGACCACT GACTGCTTGC AGAAGCGCAG CGGCTTCTCC TTCTTTAGCT	2940
GATCTTTCAT AGGCTACTAT GATAGAGTCA AACTGGTCCA GCTGAGCTAG AAAATCTGCT	3000
TTTTTCTCGA AAAGTTTAAT ACTTGGTACA ATATTACGCT TGCTTTGCTC GGCTGCTCCA	3060
AGGGCAATTT TTTCTAGTTT TTCAACTTTT TTACCCAATT TCTTGCCATC CCACTTGGCA	3120
ACTGACCAGT CTGCAGGAAA GGCCAGATT TGGCTAGCCC CCAGTTCGGT TACTTTTTGA	3180
GCGATGAACT CCAGCTTGTC TCCCTTGGA AATCCAGATG CGATGGTCAC TTGGACTGGT	3240

892

AGTTCCACAT TGTCATTTAA TTCTTGGACC AACTCAAAC TACGATTTC CATATCCAGC	3300
ACGCGCGCCA AGCGCTTGAT GCCATCATCA AAGACTAAGG TAACCTCATC CTCTTCTTTC	3360
AAGCGCATAA CCTGAAACAT ATGCTTACTG GTTTCCTTGT CCTCGATAGT GACAGGAGAG	3420
ATAGCACTGC CTTTACAAA ATACTGCTGC ATGCTAGCCT CCAATCACAC CAGAGATATC	3480
CTTGGTTTTC TTAAAGACAC AGGTATTCCA TTCCCCTTGA ACCATGTGAG TTTCGAGGAA	3540
AAATCCAGCT GACTCAGCCG ACTGGCGCAC CATGTCCAAC TTGTCCTTGA TAATGCCACT	3600
CATGATCAGG TAGCCTTCAT CCTTTACCAA GCGATAAGCA TCGTCTATTA GATGAATGAG	3660
GATATCCGCC AAGATATTAG CCACAATCAC ATCTGCCTCA ATTTCCACAC CCTTAAGCAA	3720
ATCTCCAGCC GCTACATGGA TATTTTCCAT GCCAGGGTTG AGCTCAATAT TTTCTGAGC	3780
CACACGAACC GCCACATCAT CCAGGTCATA GGCGAAAATT TCTTTAGCCC CCAGAAGCGA	3840
GCTGGCAATA GAGAGAACC CTGAACCAGT CCCACATCT AGCACCGTTT CGCCACCACG	3900
AAGAACCTGT TCCAAGGCAA AAAGGCTCAT CTTGGTAGTT GGGTGGGTTC CAGTACCAA	3960
AGCCATGCCA GGATCCAGCT TGATAATCAT TTCCCCCGCA GTCGCCTCAT AGTCTGTCCA	4020
AGAGGGAACG ATGGTCAAAT CATGAGTGAT ACGAGCAGGT TCATAGTATT TCTTCCAGTT	4080
GTCTGCCCAG TCTTCTCAG CCAAGGCAGT CGTACCTATT TTAACTCTC CCAAATCCAT	4140
AAAACTCTGC AATTCTGCTA GACGAGCCTG CAAATCCGCC TCAACCACTG TCACATCCAC	4200
CGTGTCAAGG TAGTAGGCTG TCACTACGAT TTCTTCTTGC TGCTCCACCT CTGGGAAAAT	4260
CTCTCCAAAG CGGTCCACAT TTCCACATA GTCCATACTG TCTTCGATTG CGACTCCTTG	4320
CGCTCCCAGC TCAATCAAGA GATTGGAAAC CAACTCCTCT CCCTCACGCT TCACTGTAAAC	4380
TTTTAACTCT TGCCATGTTT CCATTATTAA TACCAAGCCC GTAAACACA AAACCAAAT	4440
AGGAAATCT CTGAAGACGC TTGTGTCTAA GAGAAGTTTA TCTTTTGGC ACAGTGTTTA	4500
GGGCGGGTTC AGTTTAGAAA TGTAAC TGAACTGAA CCATCCTTTC TAATCACTTA CTTTAAATA	4560
ATCTTTTAAT CTCTCTTGCA ACTGAGGCAC AACTTGACTG GAACTAAGAA ATTCCTCAAC	4620
ATTCATCAGC TGATAGCCCT GTCCTTCATC TCCGAAGATG ATATTGTCAA ATTGTTCTTG	4680
TCTTAGCTGA CCAACCATAA AGACCGATTT CTTGCCTTTA AAAATTACGC TAGGATAAAT	4740
CTTGCTCCAA AGCAGACAGT CTTATCTTAA ATGAATTCCC AGTTCCTCAT AAATTCACG	4800
CCGAGCGCAT TCAAAAGGGC TTTCGTCCCC TTCACGGCCA CCACCTGGCA GTTCCACAT	4860
ATTGGCCCAG GGAATACTTG CCTTATCATC GCGTAAGATA GTCAAAAGCT TATCCCACA	4920
AAACAAAGCA ATCTTGCAAC CTGTGAAATC AGAAATTTCT AGTTCCATCT TCAGTTCCTT	4980
CTAACATTTT CTTTCCAGC TCGGCTAACC AGTTTTCATA ATATCTTTTC TCATCCCTCA	5040

893

ACATTCGACT	ACTATCCATT	TTCTGTCTAG	CAATCTTGAG	AGCCTTACGA	GTTTCGATCTA	5100
CATCTTTCTT	CACCTTTAAT	TGATACCAGG	CTTGTATCAC	TGAAGATTG	GACAGTTTGA	5160
GAGACAGAAA	CGATTTGACC	TGTCGAATAC	TAGCATATTG	CTCCGCTTGC	TCAAAATCTC	5220
CTTCCAACAA	GGCGATATGA	AGCAGGGATA	GTTGGGCAAC	TGTCTGCATC	ATCGGAGTAG	5280
TTGTCCTCTC	AAGTAATGCT	TGAAACTGCT	GTTTAGCTAC	TTCTTCCTTC	CCTTCCAAAA	5340
TGGAAACTTC	ACCTTGCAAT	CCTAATACAC	CATCCGCAAA	ACTCCCTCGT	GCATCCTCAG	5400
GAATGCTTG	AACAAAGTCT	TTCAAATCAT	ATTCTTGAGG	AGCTAGCAAG	GTCTGGGCAG	5460
AATGTCTCAA	TACCAGGTAG	GCGTATTGG	TATTTTCAGG	GTGTGTAGT	AATCCCAAA	5520
TTTTTGCTCC	ATCGGTGATG	TCGACTGGCA	AAATGTTATT	TAGGAAGAAA	GATAAATTAA	5580
GAAAAATCCA	AGTCCCTGCA	AAATACCAGC	TTCTTGTCAA	AAATCCAAAC	AATATCGCCA	5640
ATAATATCAA	GCCGAGATGA	ACCATCAAGC	CTCCTGAAAG	CATCAGGATG	ATTCTTTGAT	5700
CGCTTTCATC	CTCTTTTAAA	CCAATGTATT	GAGCACCAAC	ATTTTTCAGA	ATGGCTGTTT	5760
TACTAAGATG	AAACCTGCCT	GACTTTTGG	TCAAAATAAA	ATGTCCTAAT	CCAAAAGCCA	5820
CCAGCCGATA	GCCTGTCAA	TAGCCACAAA	AAGCATGACC	CAGCTCATGA	AGAATAAAGA	5880
TAAATACAT	GCTTAGAAGA	GCGAAGGCAT	AACCAAAAGT	AAAGGCTAAA	ACTGCGGAAT	5940
ACCCCAACTC	TGCAATGCG	ATTGTTCCAC	AAGCAAAAGC	TAGCATAATA	AAGACAACAG	6000
CTAGCACATA	AACCAATAA	GTCCCAATT	TCTTCATAAC	ACCTCCAACC	AACTCCTAGT	6060
ATCTTGATA	AGGATAAAAT	TCTCCCTTTT	CCAAGCCAAT	TTTTCCTTCT	TCAAAGACTT	6120
CTTGTTTCCA	TTCCATGACA	AATCCTCTG	CTTCTGGGTC	TTCCAAAAG	TCCATGAGGA	6180
CATCTAGCCC	AACCTCAGCA	GTATCTTTAA	GGAAAAGCGC	AAATAAGCT	AAAAATTCAC	6240
GGGAAAATCC	TTTTTTAGGC	AGGTAAGGAA	TAACAGTCAA	ATAGTCTTCC	TCATTGACTG	6300
TTGACTTGGC	AGGATTGTAG	AAAAGGACCG	CTTCCTCAAA	AAGAATGTCA	TCTGATGAAA	6360
CCTCTCCGTC	TTATCCACC	ATCTCCACAC	CGCAGCATTT	TGCGCTTCCA	ATAGAAAAC	6420
CACTTCTACC	GCATGGTTGC	GTTTGTCCCA	GCTAATCTCA	AAGTCAAAGG	GAAAGTTCTT	6480
GTCCAACCTC	TCCTCTAAAA	TATCTAAAAA	TCCGTATGTT	GCCATTTTGT	CCTCTTTCTA	6540
TGCGACTCTT	TAATCGCCCC	GATTGCTCGG	AAATATGCTA	AAATAGATAC	TACCATCTTA	6600
CCACAAAATT	ATTTTATGTC	CTAATTATAC	CATATTACCT	CATTTAAACC	CTTGGTATCA	6660
GTGATTTTCT	TAAAAGTCTG	ATTTCTTCAT	TTCTCATAAA	AATCAATATA	AAAAGCCCTC	6720
GAAAGGGCTA	ATAAATCTAT	AAAATCAATA	GCGAGTAAC	TAGCACAAGT	GGACGTGCTT	6780

894

TTTATTGAC TATTACCACG ATACCACGCT TAATCTTAGG CTGAACTTT CTTATCTGCA	6840
ATAGCGTCTG TCAAAGTCTG AGAAAAGTTA AGCCCCATTT CTCGTCCCAA CTTATCTGCC	6900
CATTTTGGTA TGGTCAAAGT CTTTTTAATG GGTTCCTGAC TTCCTAGGTA TTCTGATACA	6960
TCAACAGATA CCATAGAAAT AAAAGATTTA TCAAGGTCAT AGGTTGACAC GAAATCTTCA	7020
TCATCTTTAA AAGGATCATT ATCAATTAAA GACAAGCTAT TGATATCTGA TGGCTGAGGT	7080
AACTCTCCAT CACTCTCTAT CAAATCTGCA ACAGTTATCC CTAGCCACTC CGACCCCAT	7140
GCCAAAGCCT CAGAAATCCC CTCTCCTTGT GTAGCTGAGT ATTCAAAATC TGGGAAATGG	7200
ACAAAATAAG TCGCTTCTGT TCCGTCTGTG TCGTCATAAT AAAATAAAGC TGGATACGTA	7260
ACTAACATTT CACTACCTCC ATATCAAAAA GCAGGGACTG AATTTTACAA CCCAGCTTGC	7320
TTTCTTATCC CTCTTTCAGT GTACTTATTC AGCTCACCAT GAAGGATTGT GATAGGTCTT	7380
TCCCCTTGCT TTTCCATTTT AATATGGGAG CCTTTACCGC CTCTAGTCTT TATCCAACCA	7440
TGGGCCGTAA GGAGTTTAA CACTCTTTTT TGTGTCATAG GCATAGCGCT TTTACCTCCT	7500
GACAACACCA TTATAACACG TGTACACGT ATTGTAAAG AGTGATACTT ATTATTCTAT	7560
TATACATAAA AGCCCCCTAGA TGTGGTCTA AGGGAAGCCA ATTTATTCAT ACCTATTTTT	7620
CTAATGAGTA GTAAAACTG CTTCTTTATC GAGCAATTCA TCATCTGTAT AGTCAATTGT	7680
AAAAGTATCT CGATCTAAGA CAGATTGAGG CGGAGTTGAA TGAATCATAG GAACACTGCG	7740
TACTCTATAT TTTTATCTC CAATTTTAC AAAGTATAC TCTTCGAAAA TCAAATTCAA	7800
ACCACGTCAA CGTCGCCTTA CCGTACTCAA GTACAGCCTG CGGCTAGTTT CCTAGTTTGC	7860
TCTTTGATTT TCATTGAGTA TGATTAACTC TCAAGTCTTC GAAATCAGGA TTTTCAACAG	7920
TTATTACAAG GAGGCGATTT ACTACTTCAA AAACATCAAT TATTCTATTT TTCATATTTT	7980
TTCAACCCAT TATTAGAATG AACTTCTTGG TAAGCAAAAT CAAGTTTAGA TTTAATGTTT	8040
TCGTACAAAT CTAAAACTC TTTTGGAGTA TCTTCCCGGA AGAAAAGTTT TCTTTTCCCT	8100
GAAATAACTT GATCACTAAG AATCCAATGA CGAATTTGTT TTGTAAAAAT CAAAATTTCC	8160
TGACTTGGTA GTTCCATCAT TTCCATTGCT TATCACCTCT CTTTTCATTA TAGTTCATAC	8220
AATGACATTC AGCAATATTA TTTCTCAAGT CAGCACTTCC ACTTCTTTAG GCTCAACTAT	8280
CCTATTTTGA GCTTTAAGGA AAATCAAATC TCTCATGCTG ATACCTCTCC TCATTAAAT	8340
AAATAGTAAA AAAGATTCTA TCTCACTCCC TGATTATTAC AAAACCATTG AAATATCACA	8400
ACTAATAGGC TAGAATGGAC ATAGTAAGAT ATAGTAGATG AGTCATTCTA CTCAAATCCA	8460
CGTTAGAAAG GACTGTATG CCAGACAATC TCGCCGTTCT CATGCGCCCG GG	8512

(2) INFORMATION FOR SEQ ID NO: 130:

895

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2869 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 130:

CTCGTTTCAA GGTGAGTCT CTTGCAAATC TTGTTGCGGT TCTTCCTTTT GCCAAGGCAT	60
CTCTCCCATG GTTGGTGCCA GCCATTGTTG GAATCTTGCT CTCATTGGTT CTACCAAACA	120
AGCAAGAAAG CGATGTTTTT GAAATGGAAT AATCACTTAA ATCACTTTTG TAGCCAAGTC	180
TACAGGAGTG ATTKTCTTTT TTTATCCGAT GATAAATGTG TTATAATAGG TAGCGAAAGA	240
GGTGAAGAAA TGAATCAAAC AGTAGAATAT ATCAAAGAAC TGACAGCCAT TGCCTCGCCA	300
ACAGGCTTTA CTCGTGAGAT TGCGGACTAT TTAGTCAAGA CTCTAGAAGG TTTTGGTTAC	360
CAGCCGGTTC GCACATCCAA GGGCGGTGTC AATGTAACTA TTAAAGGTCA AAATGATGAG	420
CAACATCGCT ATGTGACTGC CCATGTAGAT ACGCTTGGTG CTATTGTCCG TGCTGTCAAA	480
CCAGACGGCC GTCTCAAAAT GGACCGTATC GGTGGCTTTC CTTGGAACAT GATTGAAGGA	540
GAAAACTGTA CCATTTCATGT GGCTAGCACA GGTGAAAAAG TATCAGGAAC CATCCTCATC	600
CACCAAACCT CTTGCCATGT CTATAAGGAT GCAGGAACTG CAGAACGCAC GCAAGACAAT	660
ATGGAAGTGC GTTTGGACGC CAAAGTAACT AGTGAAAAAG AAACCTCGTC TCTTGGCATT	720
GAGGTGGGTG ATTTTATCAG TTTTGACCCA CGAACTGTCTG TGACAGAGAC AGGTTTTATC	780
AAGTCTCGCC ATTTGGATGA CAAGGTCAGT GCGGCGATTT TGCTCAATCT CCTTCGCATT	840
TATAAGGAAG AGAAGATTGA ATTGCCCCGTA ACAACTCATT TTGCTTTTTC AGTCTTTGAA	900
GAAGTGGGAC ACGGTGCAAA CTCTAACATT CCTGCTCAGG TAGTAGAATA TCTGGCTGTG	960
GATATGGGAG CCATGGGAGA TGACCAGCAA ACAGACGAAT ATACAGTGTC TATCTGTGTC	1020
AAGGATGCTT CTGGACCTTA TCACTATGAC TTCCGTCAAC ATTTGGTGGC TTTGGCGAAA	1080
GAGCAAGATA TTCCATTTAA GCTGGATATC TATCCATTTT ATGGTTCGGA CGCTTCAGCG	1140
GCTATGTCTG CAGGGGCGA AGTCAAACAC GCCCTTCTCG GTGCTGGTAT AGAGTCTAGC	1200
CATTCTATG AGCGTACCCA TATTGACTCG GTGATCGCAA CAGAACGAAT GGTGATGCT	1260
TATCTTAAGA GCACGTGGT GGACTAATAT GTGCCTTATT TGTCAGAGAA TTGACCTCAT	1320
CAAGAAGGAA GAAATCCTT ACTTTGTCAA AGAGTTGGAA ACAGGCTATC TTGTGGTTGG	1380
AGACCACGAG TATTTTGAAG GCTATAGTCT CTTCTAGCC AAGGAGCATG TCAGCGAATT	1440

896

GCACCATTTG AAAAAGGAGA CAAGACTCCG TTTTCTAGAA GAAATGAGTT TAGTCCAAGA	1500
GGCAGTTGCC AAGGCCTTTG CTGCTGAGAA AATGAATATC GAACTGCTAG GAAATGGCGA	1560
TGCTCATCTT CATTGGCATC TGTTTCCACG ACGGACAGGT GATATGAATG GTCATGGTCT	1620
CAAGGTCGT GGACCACTCT GGTGGGTTC CTTTGAAGAA ATGACAGCAG AAACCTGCCA	1680
AGCAAAACCG GATGAGATTA AAAGATTAGT CAAACGTTTA TCGTCAGAAG TAGATAAACT	1740
ATTAGAAATA AAGGAGTAGA AATGAAGAAA AGATACCTAG TCTTGACAGC TTTGCTAGCC	1800
TTGAGTCTAG CAGCTTGTTT ACAAGAAAAA ACAAAAAATG AAGATGGAGA AACTAAGACA	1860
GAACAGACAG CCAAAGCTGA TGGAAACAGT GGTAGTAAGT CTCAAGGAGC TGCCCAGAAG	1920
AAAGCAGAAG TGGTCAATAA AGGTGATTAC TACAGCATT C AAGGGAAATA CGATGAAATC	1980
ATCGTAGCCA ACAAACTA TCCATTGTCT AAAGACTATA ATCCAGGGGA AAATCCAACA	2040
GCCAAGGCAG AGTTGGTCAA ACTCATCAA GCGATGCAAG AGGCAGGTTT CCCTATTAGT	2100
GATCATTACA GTGGTTTTAG AAGTTATGAA ACTCAGACCA AGCTCTATCA AGATTATGTC	2160
AACCAAGATG GAAAGGCAGC AGCTGACCGT TACTCTGCCC GTCCTGGCTA TAGCGAACAC	2220
CAGACAGGCT TGGCCTTTGA TGTGATTGGG ACTGATGGTG ATTTGGTGAC AGAAGAAAAA	2280
GCAGCCCAAT GGCTCTTGA TCATGCAGCT GATTATGGCT TTGTTGTCCG TTATCTCAA	2340
GGCAAGGAAA AGGAAACAGG CTATATGGCT GAAGAATGGC ACCTGCGTTA TGTAGGAAA	2400
GAAGCTAAAG AAATTGCTGC AAGTGGTCTC AGTTTGAAG AATACTATGG CTTTGAAGGC	2460
GGAGACTACG TCGATTAATA CTCTTCGAAA ATCTCTTCAA ACCACGTCAG CGTCGCCTTA	2520
CCTACTGACT GCGTCGGTTC TATTACAAC CTCAAAACAG TGTTTGTAGT cGATTTCGTCA	2580
GTTTTATCTG CAACCTCAA GCTGTACTTT GAGCAGTGGC GCTAGCTTCC TAGTTTGCTC	2640
TTTGATTTTC ATTGAGTACA AAAAGTAAAC TTTTCTCTTG CAATTCCAGA TAAATAGTGT	2700
ATAATGGATG GGTATGTGAA AAACATACTT GTGGGAGGTA AAAATCTCTA ATTACCGCCA	2760
AAACCACAAA GGAGGATTTA AAAATGGCTA AAAAAGTCGA AAAACTTGTA AAATGCAAA	2820
TCCCTGCTGG TAAAGCTACA CCAGCTCCAC CGGTTGGACC TGCTCTTGG	2869

(2) INFORMATION FOR SEQ ID NO: 131:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6186 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 131:

897

CTGAATCCCT TATAGGAGTC CAGTAACTTT TTAGCCTCTA CTTTGCCTTC ATAGGCAGCT	60
TCAACATCAT TAAAAAAGA AAGCACTGAA GCAAGTTCTT CAGTGTCCA CGACAAATCT	120
AGTGGGTAAC TATACTGTTT GTTCATTAAC TAATACCAGC TCTATTCTT GCTTCTTTTA	180
GTTCCTGCTT ACGATAACTA CGAGGGAGAA AAGCACGAAT CTCATCTTCA TTTAAACCGA	240
TTTGCATACG CTTGGCATCA ATAATAATTG GACGACGAA AAGACTAGGA TACTGCTCAA	300
TCAAATGAAG CAATTCCGAT ACCGAAATAC TCTCTACATC AATATTCAAT TTTTGAAAAA	360
TTTTTGAACG AGTTGAAATG ATGTCATCAG TACCATTTTC GGTCAAGGAA AGGATGTGTT	420
GCAATTCCTT TCTTGTTAAA GGAAGTGTCA TAATATTGTG TTCCACAAAG GGAAGTTATG	480
TTTTTCTAAC CAGGCTTAGG CCTTACGACA TGATGTACAG CTCGGTGATA GAAATAGTGT	540
AATCATGCTT TTCTCTTCTT ATCTATACTT TGCTACTTCT ATTATACAAA AAAATAAAGC	600
GCTTGACTAG GGATTTTTAG AAAAAAGCC TATTTTTC AAAAAAATAG GCTTTTTCG	660
AACGATTGAC ACAATTGGAT TTGGTTAATT CACTCTTAAC GATGGTTTAA AACGATATAT	720
ATTTTATAT ATGTAAATTA AAAACATCTT TCCTTCACT TCCTACGACT TTCAGATAC	780
AGATAGCCAA AGAAGTTTTC ATAGAGGGCA AAAAAGAGGA GGAAGGCATG AAGAAAGAAG	840
GTCTCTGGCA AAATCATAAT AACAGGATCC TTGGCTGGAT CAAAAAGCCA GGTATCATCT	900
CCCACAAAGA GAATTTGATG GAAAAGAGTA AAGAATTGGT CAAAACCAAT CAAAAGTCCC	960
CCAAGTCCAA TCATCACAGG TAAGACTACT AGAGCCAGGA GACTTTTTCG ATAAAGAGAC	1020
AAAAAGTCCCT TTTTACAAT CCTATTGACA AAGACATAGA AACTTGGCAG TGCTACTAGA	1080
GCTACTAGCT GAACCAAATG AAAGAGATTC TTGACCACTG CGAAATGGTG CAGACCAGCT	1140
GCTGACGAAC GAAAATCAGG CATCTGTAAG ACCTGACTAA AAGGATTGGT CAGATAATTC	1200
ATCAAGATAT GAAAATTGTA TTGAATGGTT TCTGGTTTAA GATAGACTCG ATTCTGTTAAG	1260
TTTAGCCACT GAATCTCCAT AGGATAGAAA ATCCAAGCCA GATAAATGGT CAGAAGGATG	1320
GAGAGGGAGA GGAGAAAGAG CATAGAGCCC CAAAAGATCA ATTTAGTTT CATCAAAATC	1380
CCACTCCGCA AGGCTAGAAA CCACATGTGT CGGTGCGATT GGCAGGCCAG CTACTTCTTC	1440
TGCCTTAGTA AAACCTGTCG TCACCAAGAG CGTTGGAATG CCATTGTCAA TCCCAGCCCG	1500
AATATCAGTC AAATAATTGT CCCCAACCAT GATTAACTCT TCACGTTCCA AACCTAAGTG	1560
CTCAACGCC TTGTCCATAA TGATGGCATT TGGTTTTCAG ATATAAACCG GCTTCACTCG	1620
TGTCGCTACT TCAAGCAGCG TAATCAGTGA GCCAGCACCT GGCAAAAGAC CGCGTTCCGT	1680
CGGGATGTTG AGGTCAGGAT TGGTTCCGAT AAAATGGGCA CCCTTTTGAA TAGCAAGAGT	1740

898

TGCTGTGGCA AATTTTTCAT AGTCGACTTG CCAATCCAGA CCAACTACCA CGTAGGCAGG	1800
TTTTTCCTTG TCTTCCACAT AACCAGCCGC CTTGATGGCT TCCTTGAGTC CTGCTTCTCC	1860
GACGACATAG ACGGTCTTTT CAAGCCCCAA ATCATTTCATA TAGTCGATGG TTGCCAAAGT	1920
CGCTGTGTAG ACAGTCGATA GGGGCGTATC GATATTAAAA TTCTGAGCCA ACATCTCCTT	1980
AACACTCTCT GGAGTGC GGGG TTGTATTGTT GGTACAAAG AGATAGGGAA TGTCCCGCTT	2040
TTGCAATTCA TGAACAAAAG TCTCTCCAGC AGGGATTCCG TCTTTCCCCT TATAAATGGT	2100
TCCGCTCTAAA TCAATTAAAT AGCCTTTATA TTTCATCTAT TTCTCCCTAA GCCTTTTTTA	2160
TTTCTTGCCA AGTAATGATT GCTTGGGCAT TGATAACCCC ATCACTTGTA ATTTTCATGCT	2220
TGCTTTCCAG TCCAGTCCGT TCAACAGCCG ATGTAATCAC CCCACCTGGT CGAACTTCCT	2280
TGACATACTT GAGGTTGATT TTCTTGGGAA TATAGTGGGT CAAAAAATCC GCTCCCATGA	2340
CCTCAAAAAT CCAGTCCAAG TATTTACTGT TATTGACATG ACCATTTCATA TCCAAGTCGT	2400
AAAAACGAAC ATGGTAATCC TTGCTGATCG GTTCTTCCAA GGACTCATACT TTCGGTCCAC	2460
GGATAAGTTT TTTATCAAAA TCAGACTGGT AAGGAGCCAC AATCTCAGGT TCAACAACAT	2520
GGACTTTTCG ACTGTGCGG TCCATGAGAA CAAAGGTCGC CATCATGTGG ATGAGCTCCT	2580
GCTCCGCTTC ATTATAAATA GTAAAGCGAC GGTAGCAAAA AAGTCGATTG TAGCTCAAGG	2640
CTTCCGTTTC GATGGTAAT TCTTCGCAA AACGAGGCAA ACGAACCACC TCAATATCAT	2700
ATTCTACGAT AATCCAGACC AGATTATATT CTTCACAAAT GGCCTTATCA CTAACCTCCA	2760
GTTCATCGA CTGCATCCCT GAAACTTGCA GTGACAGCAA AATCACATCT GGAAGTTTGA	2820
TATGACCGTT CATATCAGCC ATATCAAAAG GAATTTTCAT TTTCATTGTA TAAGTTAAGC	2880
CCATGATCCT ACTCCAAAAT AAATCGTTCT GCTACAGTAT CTCCCCAAAA GAGACCTCTC	2940
TTTGTCATGC GAACGTGGTC ACCCTCAATC TGCATGAGGC CTGTGTTGAAC CAAATCTCTG	3000
ACAATTCTC CATAAAGTCC AGCAAAAGAC TGTCCAAAT TTTCCTCAAA TCGCGCCATG	3060
GAAACCCCGG ATTTCTTGCG GAGTCCCAAG AACATTTCTT CTTCATTG CTCTTTTGA	3120
CTCAGGTGAT CTCTGTAAT ACAAGCATTG CCTTCCTCAA CCGCACTGAG ATAATGACGA	3180
ATGGGACCAT GATTTTATA GCGTACTCCA TTGACATAAC CAGATGCCCC TGCACCAATA	3240
CCATAGTATT CAGCATGTG CAGTACATG AGATTATGAC GACTTTCAAA ACCGGGTTTG	3300
GAGAAATTAG AAATCTCATA ATGCTCAAAA CCGCTCGCT CCAGCTCTGC AATGATGTAC	3360
TCAAACATCT CCGCTTCTAG TTCCTCCTTA GGCAGAGGCA ATTTCCCACG TCGCATCCGG	3420
TTCATAAAGA CCGTATGGTT TTCTAAATC AACTATACA AACTCATGTG GGAATATCC	3480
AATCCAATGG CTTTAGCCAC ATTTTCCTTT ACTTGCTCCA TGGTCTGACC AGGCAGAGCA	3540

899

TAAATCAAAT CAATGGAGAT ATTGTCAAAA CCAGCCAGTT TCAGGCGATC GATATTTTCA	3600
TAAATATCCT TCTCCAAATG ACTGCGCCCA ATCTTTTCA ACATCTTATC ATCAAAGGTC	3660
TGGACACCTA GCGAAACACG ATTGACAGCC GAATTTTCA AAACAGCTAT CTTATCCGCA	3720
TCCAAATCGC CTGGATTGGC TTCAATGGTC AACTCTTCCA AGACAGACAA ATCCAAGTTT	3780
TTAGTCAAGC CATTCACTAA CACCTCCAGT TGCGGAGCCG ACAGGGCTGT CGGTGTTCCA	3840
CCACCGATAT AAAGGGTTGA CAACTTTTCA ATATCATAAG AACGAAACTC TTCCAGCAGA	3900
TGCTCTAAAT AGCTGTCGAC TGGCTGATT TTGATGAAGA CCTTTGAAAA ATCACAATAA	3960
TAACAAATCT GGGTACAAAA TGGGATGTGC ACATAGGCTG ACCTTGGTTT TTTCTGCATA	4020
GTAATTATTA TACCACAAAG ACTAGATTCC AGATAAAAA CACCATCCCC AGATACATAG	4080
TCCGTCCGGA GATGGTGATG GTTTATTCTT CTGTTATATC AATCACAATC TCTTCTGAGT	4140
CATCAAGAGC TTCGGCTTTT TCTTGCCATT GCTCCTTGAG ATTATTTAAT TGATTTTGTG	4200
ATGCTTCTGT CGCTTGAAAA GCATAGGATT TAGTTTGAGC AAGTATACTG TCCACAGTGA	4260
TTTCACCTGA CTCAACCTGT TCTTTTGTT TCAGAACAAA ATCTGTAGCC TGCTCCTTAA	4320
CTTCTGTGAG TTTTTCACAG ACTTGCTCCT TGGCATACTC CGGATCTTCT CTCAAATCAT	4380
CTAGAAAATC TTGAGCCTGA CTGCAAACTT GTTTGCCCTT ATCACTTGTT AAAAACAAGG	4440
CAAGAGCTGC ACCTGAAACG GTTCCTAAAA GGATTGAGGA TAATTTACCC ATAAGGATTC	4500
TCCTTTTFTA TTTTGTGAAA AATTACTTG CAAGACGAAG AGCTGACAGA CTTGCACCAG	4560
TCTTGAGTGT TTTTGAACCA GCTGATGAAG CTTTCTTGCT CAAGACACGC GCATGGTCAT	4620
TGAGGTCTGA AACAGATAGA GATAAATCTG CAACAGCACT GAAGAGTGA TCAATCGTAG	4680
CCACCTTGAC ATTGATATCA TCTGCCAAGA CATTGACCTT AGCCAACAAC TCATTGGTGT	4740
GATGCAAGGT CACATCCACA TCTGAAGTCA AGGTTTAAAT CGTCTTTTCT GTTTCATCGA	4800
TGACACGACC AAGCTTTTGT ACAGTAATGA TCAGATAGAC CAAAAGACA ATCAAAGCTA	4860
GGGCAACAAG AATATATGCA ACTTCTAACA TTTAGTTTTC CTCCTCTGTA ATATAGTAAG	4920
GGGCCTTCTT TCGATTTTGA TAAATAACGA TCATTATACC GAGACCGATA AGGACAACCTG	4980
ACAGCCATTG GGACACTCGA AAGCCGAAGA ACATGAGACT ATCTGTTTCG ATACCTTCGA	5040
TAACCATACG ACCGAAACCA TACCAATCA AGTAAAAGGC CGTGATATGA CCTCGTCTGA	5100
GACTCTTCCA TTTCCGTCTA AAAATCAGAA TCAAGGCAAA GCCAAGCAGA TTCCATAGAG	5160
ACTCATAAAG GAAAGTCGGT TGACGGTAGC TCCCCTCAAT ATACATCTGG TCACGGATAA	5220
AGCCAGGTAG ATAATCCAGA TTATCCACTG TTGCACCATA AGCTTCTTGG TTAAAGAAAT	5280

900

TACCCCAACG CCCCAAACTT TGAGCAATCA TAACGCTAGG CGCCGCAATA TCTAGAAAAT	5340
CCCAAGTATT GATGAGTTTA CGGTCAGCAA AGATATAGAG CACAAGAGCC CCAGTTATCA	5400
AACCACCGTA AATGGCCAAA CCACCATTCC AAATGGCAAA AATCTCTCCT AAATCTGAC	5460
TATAGTAATC AAATCGGAAA ATAACATAGT AGAGACGAGC TCCTAAAATA GCCAAGGGAA	5520
AGGCTACTAA GATAAAATCT AAAATATCGT CTGGTATGAT CTTCTTTCTA GGTGCTTCTT	5580
TCATGGTCAA ATAAACCGCA AGAATCAAGC CTGTCACAAT ACATAAGGCA TACCAACGAA	5640
TGGCTAGGGG TCCTAGTTGA ATAGCAATTG GATCAAGCAT TTTGCACCTC ATTTGAGCG	5700
ATTAGACTTG TCAGTCGTTC GTCGAACAAA CGGGTCGCAT CAAAGCCCAT TTCCTTGGCA	5760
CGATAATTCA TGGCAGCTGC CTCAATCACA ACAGAGATAT TACGACCTGT TTTAACTGGA	5820
ATACGAATAC GAGGAATGTA CGCCAGAAAC TTCAAGTTCC TCTGCATTAT TTCCAAGACG	5880
ATCAAAGGTC TTATGCGTAT CGTAATTTTC CAAATAGACA GCAAGCTGAA CCTGTGAAGA	5940
ATCCTTGACA GCACTCGCAC CGTAGAGACT CATAACATCG ATAATACCAA CCCACGAAT	6000
TTCAATCAAG TGTTTCAAAA TTTCAAGCTGG TTCACCCAG AGAGTAATCT CATCCTTGGC	6060
AAAGATATCG ACACGGTCAT CGGCTACCAA ACGGTGACCA CGTTTGACAA GCTCAAGACC	6120
TGTCTCGCTC TTACCAATTC CACTATCTCC CTGAATCAAG ACGCCCATCC CATAAATATC	6180
CATCAA	6186

(2) INFORMATION FOR SEQ ID NO: 132:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9541 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 132:

GAAATCACA ACCCTTTTGG CAAAATTTT GAGATTATTT TCACAACTT GATTTTCAA	60
AGTATACTCA ATAAAAATTA AAAAAATCCA CTACGTCAAG GCGAGGCTAA TGTGGTTTGA	120
AGAAATTTTC GAAGAGCGTG AATGAGTATC ATCTATAGTA AAATAAAAAA ACTGAACAAT	180
TTGGTTGGGG ACAGCCAAAC CAATTTCTCA CAATGTTTCA GAAACAAGGG TGTGCTATTC	240
CAATTCAGC CTACTATAAC TGTATAGAT TGCTGAAACA AAGTCTAGGT AAAAGTCTTC	300
ATAATAAAAA GACCTCCTAT CAAGTGTTC AAAACTTTGA TAGGAGGTCT TGTTTGTGA	360
AAATATTTAT CAAATTTTCT ATACAAGTGA GCTGTTAGCC AGGTTCTTTC TATTCTTTCA	420
ATTCAATGA ATGGATTTT TACTAATACT CATAACTGGG AATTGTCTG TGTAATAATA	480

901

GCGAGATAGA TGGTATTTAT AAAACACTCA AGACAGCTAG ACTAATATCA TTAAAAACAT	540
TATCTTCTTT TGAGCGACTG TTGGTTACCA ACATAGCTAA ATTTCTTGCA TTTTCAAATT	600
GATAGGGTTC TGATTTAGCA TTCACAACCA CCAAGAGGTG TTCTTTGCCG TGAAC TTCAT	660
AGATAAGGTA GCCGCTATGT TCAATCGCAG AATGCACAAA GACATGATGG TAAATTTTCAT	720
CATAGCTAGA GTAAGAAAAG GCACCAGTTT TTGTCTTCAA TCGGATGACT TGACGGATAA	780
ACTCAATACT GTCTTGACGC TCATTAATCA AGTTCCAGTT CACTTGGTTC AACTGTGTCAG	840
GAGCATTATA GCTATTCATC GCACGCTCTC TATCATCATG GGTCAACTCA CCATTTTCAC	900
CAGTCGCAAC CAGTTTGTA CGACCAAATT CTGACCGAT TTCCATAAAG GCCATCCCCT	960
GCATGAGCAG ATTCATGGCT GTGGCAGTTT CGACCTTGCG CATGATTGTC TCTGAAC TTT	1020
GGTCTGGATG AAGGGTTGCC AATAAATCGT GAAGATTGTA ATTGTCATGG GCTTCTACAT	1080
AGTTAAGCAC CTGATTGGA TGTGTATAGC TTCCTAATTC ACGACTTCCT AGGATTGCTT	1140
TAGCTAGAAT TGGCTCTGTC GCAGCACCAC TGACAAAACC TGACTTGATA GCACCATAA	1200
CTTCTCCCCC TTTGACAGCA TCGCGCTGAT TGTCAATAAA GAAACCAATA TTTGGCATCT	1260
GGTAGGCATT GTCCTTCTTG GCCTTATCAT AAGGGGCAAG ACCTGTTCCC ATATCCCATC	1320
CTTCTCCATA GAGGATAATG TTGGAGTCGA TTTTCATCAA GCTTTGACGA ATCATCTGCA	1380
TGGTCTTGAC ATCATGAATC CCCATCAAGT CAAAACGGAA GCCGTCAATA TTATATTCCT	1440
GCACCCAGTA TAGAAGAGAA TCAATCATAT ACTTGCGAAA CATTTCTGTG TCACTGGCTG	1500
TTTCATTTC AACACCCGTT CCATTCTGGA AGGTACCATC TGGATTGATA CGATAATAGT	1560
AATCAGGGAC TGTGTTTGG AATGGTGCAT CAACAAC TGA GAAGGTATGG TTATAGACTA	1620
CATCCATAAT GACTCCAATA CCCGCATCGT GATAAGCTTG AACCATCACC TTCAAATCAC	1680
GAATGACCTG AGCTGGATCA TCTGGATTAG TTGAAAAACT AGTTTCTGGC GCGTTATAGT	1740
TTTGTGGATC ATAACCCAG TTGTAGGTTA CATTTCCATC CTCATCGTAT TCTTTATGAC	1800
GGTCTGCAAT TGGTTGCAAT TGAACATAAT TGTAGCCCAG CTTCTTGATG TAATCAAAAG	1860
CAGTTGACTG GCCGTATTGG TTAAC TGTTC CAGCCTGAGC AGCACCCAAG AAAGTTCCCTC	1920
GAAGATGTTT ATCTACACCC GATGTAGGTG ATTTAGTCAA ATCAGGAATG TGCATTTTCAC	1980
AGATAACTGC CTTACATGGA TTTTCCAAGC GCCAAGTAGC CTCGGAACCG TGCTTAACCT	2040
CGAAGTTTTC AACTTGCTTT TCTACATGGC TCAGAATAGC TGAACGTTTG CCATCAGGGC	2100
TGGTCGCGAT TGTATAAGGA TCACGTGTCA GTGTTTGGTG ATGAGGGAAT TGGACTTGAT	2160
ACTGATAAGT CTTACCTACC AAATCTCTT CAACATCCAA ACTCCAGACA CCGATTGTAT	2220

902

TGTCCTTATG ATTATAAGAG TAGCTATTGC CTCTTTTCAT CTCAAAAGTC TTCCAAACGG	2280
GTGCATCATT AGCAGCTGAT TCATAAACGA CAACTTGCAC TTCTGTCGCT GTAGGTGACC	2340
AGAGAGAAAA ATGAGCCTGA TTGTCCTCTA CACGGCAACC CAATTCTCCT TGGTAACCCC	2400
AATGATGATC AAAACTAGCA CTGTTAATGG CCTTATCAAA GGCAAAAGGA TTTTGATTTT	2460
TATAGAAAGG ACTGGCAATA GCAGGATTTT CAGAGTAATA AATCCTATCA TCGCCTTCCA	2520
AAATCCAGAC CTCTGTAAAT AGGGGATAGT GATTAAAACG GATAGAATAT TCTTTACTAG	2580
TTTGACCTGT ATGAACCACA AAATTCAAGC TTTCTATAAC ATGTGAACTT GGGTGTTCAA	2640
AGCTAAATAA AGCTCCAAAA TAATCTTCTT TGTAGGTTAG CAAATCAATT CGTTGATCCT	2700
GACTTTTAC AAAGGAGCAA GTGTCAATAT CTCCATCTT ACGATGGTAA TGAATGCGCA	2760
TAGGGTAGTT ATACATTTTT TATTTTTCCT TTTTACTTTG TTTCTATTTT ACTAATAAAT	2820
TTTTGTCAAT CTCGTCTCAA TTAACAGACA TAGTCATATT CTCTAACTC TGTTTTTAAA	2880
CGATCCATTA CAAACTTTCT AGCCATGCCT CATCTCTGAC CTGGATACCA AGTTCTTGTG	2940
CTTTTTGCAG TTTACTTCCA GCGTCTGCAC CTACCACGAC GAGGTCGGTC TTTTTAGAAA	3000
TACTACCTGT CACTTTGGCA CCCAGACTTT CGAGTTTACT TTTAGCTTCT GAGCGCTTGA	3060
GTGCTTCCAA TTTTCCTGTC AATACCACGG TCAAACCTGA CAAGGCCGCA TCCGCTACTA	3120
CCGTCTGTCC TTTATAGTCC AGATTGACCC CAGTTTCTTT CAATCTCTG AGCAGAATTT	3180
CAGAGCCTTC TGTCGCAAAA TAAGTCTGAA GACTTTTGGC AATCACGCCA CCTAGACTTT	3240
CAATACTAGC CACTTCCTCT GAATCTGCCT GAGACAGATT TTCAATTGAA TGGAAATATT	3300
GAAGTAAAG CTGACTAACC TTGCTTCCGA CATGACGAAT TCCCAAACCA AATAAGAGCT	3360
TCTCGGCAGA ATTTTCCTTT GATGCTTGA TAGCCTGATA CAGTTTAGCA GCGGACTTTT	3420
CCTTAACTCC CTCTAAAAGG AGGAAATCCT CTTCTTGCAA ACGATAAATA TCCGCCACAT	3480
CCTTGACTAA ATTAGCAGCA AAAAGCTTCT CAACAATAGA TGGACCAAGG CTTGTAATAT	3540
TCATAGCATC ACGAGAAGCA AAGTGAATCA AGCCTTCCAT GATTTGAGCA GGGCAACGCG	3600
GATTGATACA ACGTAGGGCC ACTTCATCTT CAAAGTGCAA CAAGTCAGAG TTACAACCTG	3660
GACAGTTTGT AGGGATATCT AGTTTTTCTT CAGAAACCCG TTTGGACTCT ACCACAGTA	3720
AAACGGCAGG GATGATGTCA CCAGCCTTAT ATACAATGAC CGTATCGTCT TTTTCGGATAT	3780
CTTTTTCAGC AATATAATCT ACATTGTGCA GGGTCGCACG GCTAACAGTC GTACCGGCAA	3840
GTGTACTTGG TGTTAGATTA GCAGTTGGAG TTACAACACC GGTACGGCCA ACTGTCCAGT	3900
CAACTGATAA GAGTTGAGCT TCTTTTTCTT CGGCAGGGAA CTTGTAGGCT ACTGCCACT	3960
TTGGAGCCTT AACTGTAAAA CCAAGTTCTT CTTGACTTGC TAGGTCGTTG ACCTTGATTA	4020

903

CCACTCCATC AATATCGTAA GGCAGATTTT CCCGTTCCCTG TCCTACTTCT TGGATAAAAT	4080
TCCAGATTTT ATCTATGTTT TCAGCCAAGA TTCGCTTAGG ATTGACCACA AAACCTAGTT	4140
GTTCTAGGTA CTTCAAACCC TTTTCTTGGC TATCAGAGT TGAAGGGCTG GCTTCTTGAT	4200
AGAGAAACGT TGCAAGATTA CGCTTGGCAA CTAAGCTGT ATCCAACTGA CGCAGAGTTC	4260
CTGCTGCCGC ATTACGAGGA TTAGCAAAT CAGGCTCTCC ATTTTCTTGG CGCGCTTGGT	4320
TAACTTGGTC AAAGGAAGCG CGTGGCATGT AACATTCCTC ACGAACTGTG ATATCTAGTT	4380
CTTCTGGCAA AGTCAAAGGG ATGTCCTTAA CACGCTTGAG GTTTTCTGTG ATATTTTCAC	4440
CAATGAACC ATCTCCACGT GTTACCCAG CAACCAAAAT CCCCTTTTCA TAAGTCAGCG	4500
AGATAGATAA GCCATCGATT TTCAGCTCAC AAATATAGGT CGGATGAGCC ACTTCCTTAC	4560
GAACACGCGC ATCAAAAGCA TCTAGCTCCT CACATGAAAA AGCATCCTGC AAATATAAAA	4620
GAGGATACTG ATGACTGTAT TTTTCAAAC CATCTAAAAC CTTGCCACCA ACACGATGAG	4680
TCGGACTGTC TGCTAGCACT TGCTCTGGAT AAGCAGTTTC TAACTCGACC AACTCACGGT	4740
AAAGGCGGTC ATACTCACTG TCTGAAACCG AGGGATTATC GCTGGTATAG TACTCAGTCG	4800
CATAGCGATT GAGCAAAGCG ACTAACTCAT TCATTCTTTT ATTCATAAGA CCATTTTACC	4860
ATAAAACAAG CCTCTCTCAC AAACGAGAAG GCGGAAAAA ACACTTAGTT TGAAATTATT	4920
TTTGAACTC AAGCAACCTT ATATCAATTT TTCAAAATGA GTTCGAACAT ATCCGAGAGC	4980
TAAGAAATAT AAGGCTACAA TCCTCAAGTCC AATAATCAAG AAAGAATAAA GATGGACACT	5040
TGGCAAGACT GTCATAAATC CTTTGTCAAT AGGCATAAAT AGAATAGCTA AGGTAAAAAT	5100
TGTACTCAGT ACTCTTCCAA GAAATTCGCT CTCAACCTTG GTTTGTACTT GAGTAAAAAA	5160
GTGAATATTA AAAATCGTCA TAAACAATTC ACAAATAAA TTTCAGAAA AGGAAGAAA	5220
AGTTGGAAGT GGTAAATCCA TCATAAAAC TCCGACACCT GTCAAAGCCA GTAAATCAA	5280
AAGATTATAA ATATTAGCTT TAATTTTACT AGCTAGAAGA GCCCCAATGA TGGAACCAAT	5340
AGCCCCATA GTTAAATAC TTGCATAGGC TCCTTCTGAC CCGTAAAGCT GATTGAAAA	5400
GGGAAGTAGA AATTCAAAAG CTGCAAAAAA GAAATTAACG CTGGAAGCTA CCAGCAAAAG	5460
GAAGAAAATT TCTTGCTGAT GCCAGATATA GTGTAACCCA TCCTTGATAT CTACAAAAAT	5520
ATCTCTCCCA GTAAAAGCCT TTTTCTCTTG AACTTTTGCT TCCTCTTTTG GAAGGAAAGC	5580
CACTAGAACA AAAGCAATGA AAAAAGTCAG CGAGCTAGC AGTAGCGTCA TATGGAGACT	5640
TGCAAACTGT AAAACAAGGA AGGAAAGAAC AGGAGAGCTA ACACCTACAA CCTGCAAAAC	5700
CAGCTCTAAG CGAGAATTAT AGATCACAAT CTCATCTTTC TCCACCACTT CAGTTATGAT	5760

904

AGCTTTATTG GCTGTGCGAG AAAAGGCAAA AGCAATAGCC TGCACAATGT TAGCAACAAT	5820
CAAAGCGCCA ATCATCCAGC TATCATTCCT TATGAAAGAA ATAGCCAGAC AAAGAATCCC	5880
ACAAACAAGA TCTGCCGTCA TTTAAATCCT ACGACGAGAA AAACGGTCTG AAATAACTCC	5940
GCCAAAGGGA TTGACGAGAA TAGATGTGAC GAGCTCAGAA ATCTGATACA TTCCTAAAC	6000
TGTCTGTCTT ATAGTCCCCA TAGAAGCCAA CCAGACACTA TTTCCATAAT CATAGAGCAT	6060
ATTTCCCAT TTTATGATAG CCCACGGCT AATCAACTGC ACTGCATAGC GATTCATATT	6120
AAAGCTCCTC TCAAATTTTG AAATATTTGT ATCAAAACCG AAAGGAGCTT TTTATTTT	6180
CCCTTATTTG GGAAATTA CTTTGTGACAA ATTTTTCGTA GTGTTCTGTA TAATAGGCTA	6240
CTTGCTCTGG AAGACCTAAC ACATCAAAAA TATGCATGGC CTCTGCATC TGCTTACAGC	6300
CTTCTTTTACA CTGTCTTTT TGATATAAGG CAAAACCTTT TAAATAATGG AAAACATTAC	6360
GCTCATAAAG CTTAATACCT TTGTCAATA TCTTCTCTGT ATAAGCCTCA AAATAGTTGG	6420
CATTATAAAA AGAAGATGC TCTAAACAAT GCTGGTAACA ATTGAGGGCC AAAATCAACA	6480
CTAATCTCTT ATGGCGACTA ATCTCTTGGT AAAATTCCTC CCTCTCCATA ACTTCTCTAC	6540
CAATCCGAGT GACATAGTCT ACATCGTAGA AACTATAGAG GTTACCGAAA AGAATCAACT	6600
CATACATGGT CCATTCTTCT GTTTTGAAGA GATAATCTGC TACCTTACCC AAATCATCCT	6660
GCTTCATATC ATAACGCA TCTCTTTGAC AAATCAGACC TTGTAGCAA ATCCAGTTCA	6720
GCTCAAAATA AAGGGGAGTC GTCGAATCT TAGACTTTTC AAGTTGTCT CTTTGAAGCT	6780
TTTGAAAACC TGCAATATCG TTTGAATAGT AAAGTGGGAT AATCTGTGCC ATCATAGACA	6840
CATGTTTCATG ATTATGAAAA TTCCTTGCTT TATCCATGAA ATTTTCGATT GTTACATGAA	6900
TGTTATCCAA AATCTCAAAG AAACGGGAGA CTGCCAGGTC AGACTCCCCA AGCTCAAAGC	6960
GAGATAACTG AGAGGTAGAG CAGGATTCGC CTGCTGCTTC CTTTAAAGAA TAATTTCCAC	7020
TTGTTGAAA TTCACGAAAT ACTTTTCCAA GATGTTCCAT CTTTACACCT GCTCTGATAA	7080
TTCTTCCCAC TCAAGCATAG CTTCTTCTG ACGATGGCTG ATTTGTGCCA GCTCAGCCTG	7140
TAATTCATG AGTTTGTGCG CATCGTTTGT TTCCAACATT TGTTGAGAAA TGGCTTGGCT	7200
TTGACTTTCT AGCTCTTCAA TTTCAGCTT TAGACTTTTC ATTTGTGCGA TGAGTTTGGC	7260
AACTTCTTTT TGACTTTCTT TCTGGGCTG ATAGTCATTG ACTGGACTTG CTTCTTTGTC	7320
TTGATTGCTA GTTGAAGCTT CCTCAGTCTG ACTCATTTCT GCTGTTGCTT TCTTCTCAAC	7380
ATAGTAGTCG TAATCTCAA GGTAGAGAGT TGAACCATC TCAGACAATT CCAAACATG	7440
AGTTGCCACA CGATTGATAA AGTAACGATC ATGACTGACA AACAGCAAGG TTCCATCAA	7500
GTCAATCAAG GCATTTTCTA GCACTTCCTT ACTATCAATA TCCAAGTGGT TGGTCGGCTC	7560

905

ATCCAGAAATC AAAAAGTTAT TGTMTTCCAT AGACAATTTA GCTAAAAGCA AACGAGCTTT	7620
TTCCGCCACCA GATAGCATGC CGACTGATTT TTTAACATCA TCTCCTGAGA AAAGGAAGGC	7680
TCCAAGACGG TTGCGGATTT CAACTTCTGG TGTCAGTTTG AAATCATTCC AGAGTTCATC	7740
CAGCACCGTA TTACTTGGTG TCAGCTTGCT TTGGGTTTGG TCATAGTAAC CAACCTCAAC	7800
ATTAGCGCCA AAGCGCTTTT CTCCCTTGAT AAAAGGAATC TGGTCCACAA TAGACTTGAT	7860
AAAGGTTGAC TTGCCGATAC CATTGGGACC AACGATAGCG ACAGCATTCA TCTTACGAAG	7920
ATCTAGGTTA ATCGGTTGTG ACAAGACTTC CCCGTCATAG CCAACAGCTG CATTTC AAC	7980
AGTCAAAACA ACATTGCCCG ACGTTTTTTC AGACTGGAAG GTCATGTTGG CTGATTTCTT	8040
GCCAGCTTCA GGCTTGTC CAACGTTCCAT TTTTCCAGT TGTTTACGGC GAGATTGAGC	8100
ACGTTTAGTC GTTGAAGCAC GAACTAGATT GCGATTGACA AAGTCTTCCA GAGCAGCGAT	8160
TTCTTCTGT TGCTTTTCAT AGTTTTTTC CTCAGTAACT AGCTTTTGCT CCTTCAATTC	8220
GACAAAACGA GAGTAATTCC CCACATAGCG ATCCAAGGAA TGCTTGGTCA AATCTAGCGT	8280
AATGTGCGCA ACCTTGTC CAAGAAATAACG GTCGTGGCTG ACGATAATGA GGGCACCCT	8340
ATAGTTTACC AAGTAATTCT CTAGCCAGGC GATGGTTTCA ATATCCAAGT GGTTAGTTGG	8400
CTCGTCCAAG ACCAAGAGAT TGGGCTTTTC AAGGAGCATT TTGGCAAGTG CCAAACGAGT	8460
ATTTTGACCA CCAGAAAGCT CAGCAATTTT CATCTGCCAC ATAGACTCGT CAACTTGAA	8520
TCCATTCAAA ATCGCTCGAA TATCAGCTTC ATAGGTAAAG CCACCTGCTT GGCGAAAATT	8580
CTCAGATAAG CGGTCATAAT CTGACATCAG TTTATCCAAA TCCTCACCAG ACTTTTCACC	8640
CATCTCCAGC TCCATCTGAC GCAGTTGTCT CTCCGTCGGA CGCAAATCAT TAAAGACATG	8700
AAGCATTTCA TCGTAGATGG TATTTTCAGA CTCAAAACGG CTATCTTGGG CTAGGTAAGA	8760
CAGAGAAATA TCTTTTCT TATTGATTTT TCCGCTAGTT GGCTCCTCTT CTCCAATAA	8820
AATCTTCAAA AGAGTAGACT TACCTGCACC ATTTTCCCA ACAAGAGCAA TCCGATCTCG	8880
TTTATCAACC TGCAGGTTGA TATTATCGAA AAGAACCCTT CCTGCAAAAG AACGTTCAAT	8940
TTTATTAGCT TGTAATAATA TCATACAAGT AGTATAGCAT GTTCCCTAA GGCATTCAAG	9000
ATAATCGTAA GTCTTTTAGT ACAACTTTTA TAACATAAAA TAACTAAAT TATGTATATT	9060
TTATATTAGA TTACTTCACT ATCTTGTTGG ATTTTCTAAC CAGCTAATCT TGTTTCAAAT	9120
AGTTATCGCA CAAGTCTATT ATTTAATTCT TTTCATCATT TACGTACGTA TAGCAGATTG	9180
AAATAAGATG AGAACAAATC GATTGGGAAA GTAAAATTAA TTTCTATAAA TGTTTTCAGC	9240
ATGTTTCGT ACTATTTTAG ATTCAGTCTA CTATATACAA TATTTTCGGA ACATTCAACT	9300

906

TTTAACTCT ATTTATTACT AGATTTTCATA ATTAAAAAAC CTACTGACCA AGCTAGAAAG	9360
CTTGATACAA TAGGCTTTTT AAAGACTGAT TATTTAACAG CGTCTTTAAG AGCTTTACCA	9420
GCTTTGAATG CTGGTACTTT AGAAGCTGCA ATTGTCATTT CTTTACCAGT TTGTGGGTTG	9480
CGACCTTTAC GTTCTGCGCG CTCACGAACT TCAAAGTTAC CAAACCGAT CAATTGAACT	9540
T	9541

(2) INFORMATION FOR SEQ ID NO: 133:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3502 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 133:

TTGACTATCC TATCATGCTT TCTAAGGTCT ACTCAAGAAA ATCATTTTCA AGTTTTCACA	60
CCTTTCTCAA AAAAGTTAAA AAATTTTCTC AAAACGCTT GACTCTGACC TAAGGCGAAG	120
GGTTATACTA TCATTGTAAG GAGGAAATCA TGTACCATAT AAAAGAAGCT GCGCAGCTTT	180
CAGGTGTCTC TGTCAAGACC CTGCATCACT ATGACAAGAT AGGACTCTTG GTCCCCTTAA	240
AGTCGGA AAA CGGCTATCGA ACCTACAGTC AAGAGGATTT GGAACGCCTT CAGGTCATTC	300
TTTACTACAA ATATCTAGGC TTTTCTTTAG AGAAAATAGC AGAGCTGTTA AAGGAAGAAA	360
GGACAGATTT ATTGCCCCAT TTGACTAGGC AGTTGGACTA TCTAACTCGC GAAAGGCAAC	420
ATCTGGATAC CTTGATTTCC ACCTTGCAAA AAACATTTCA AGAACAAAAA GGAGAAAGAA	480
AAATGACCAT TGAGGAAAAA TTCACGGGAT TTAGCTATCA AGACAATCAA AAATACCACC	540
AAGAAGCGGT AGAGAAATAT GGTCAAGAAG TCATGGGACA AGCGCTCGAA CGCCAAAAAG	600
GTCACGAAGA CGAGGCTACG GCCGCCTTTA ACCAAGTCTT TCAAACCTTG GCACAAAATC	660
TTCAAGTTGG TTTACCTGCA ACAGCAACCG AAAACCAGGA GCAAGCAGCC AAGCTCTTGC	720
AAGCCATTCG CACTTATGGA TTGACTGCT CTATTGAGGT ATTCGGTCAT ATCGGTAAAG	780
GTTACGTCTA CAACCCAGAG TTTAAGGAAA ACATTGACAA GTTTGGTTCT GAAACAGCCC	840
AGTACACGTC AGATGCCATT GCGGTTTACG TTCAGACAAA TGCAGAATAA ATAGGCTAGG	900
AATTCCTAG CCTATTTTTT ACTTCAAATC ATAAAGCCAG TCGTCACCGT TTTTGTAGTA	960
AAAGAATTCA CTGAGATCTT CTCTAGAAA CACACGAAGC ATATCAGACA TATCATCGGT	1020
TGCAAGTTTT AGATGAGAAA GATTTTCAAA GTCCTCCAC CAAACTTTCC CTTGCTCTGA	1080
AGACTGGAGT TCACCAGTAA AGTGTCTGT CTTGTAAAAA AGGACGACAT AACGATAATC	1140

907

CTTGTCGTCA TACCAGTTTT TGATACCACA GAGTTGGGGT TTGGAATGA TCAGACCAGT	1200
TTCTTCTTTC ACTTCACGAA TGACAGCATC GACAAAGGAT TCGCCACGTT CAACATGACC	1260
ACCAGGAAAA GTAATGCCAG ACCAGTCGGG ATTAACCTCG TCTTGGACCA GGACCTTATC	1320
TCCGTTTTTA ATCATAACA TGTAAACAAA TTCGACTGCC TCTCTTCTGT TCATTCTTCA	1380
CAACCTTTAA TCTTTAATCA TAATGCAGAC TTCCCGCCAC CCAGCCGGTA CAGAGGGCAG	1440
AAGTGATGTT AAAGCCACCC GTGTGGGCAT TGATATCCAT AACTTCGCCT GCAAAGTGGA	1500
GGCCAGGTAC CAGCTTACTT TCAAGGGTTT TAGGATTGAT TTCCTTGAGA CTGACTCCAC	1560
CCTTGGAAC AAAGGACTTT GCAAGGGACA TTTTCCAGT TACAGGAATT TTAAGTTCTT	1620
TAATGGACTG GACAAGTTGT TCTCGTTCCT TTTCACTCAG TTGTTTGACT TTTTCAGGAT	1680
ATCCTTGATC AAAAAATTCG GCCAAGCGTT CTGGTAACAA GGTTTTTAAA GCGTTTTTCA	1740
AGGATTTTTT CCGATTTTCT TCTAGAAATG TAACCAAGTC CTCTCAGAA AGTTGAGGCA	1800
AAACATCGAG TGAGAGAACC TCCCCACCTT TGACAAAGCT AGACATGCGT AGGGCAGCAG	1860
GACCTGACAA ACCAAAGTGG GTAAAGAGTA AATCATGAGT GATGACATGC TTACCATAAC	1920
TTAGGGTCAC ATCGTCCAGA GAAATACCTT GTAAGGCTTT ATGTGGAAAA TCTGTTAATA	1980
AAGGACTTTC AGCAGCCTCA AGATCGGTGA TGGTATGCTT AAAATGGCGA GCAATCTCGT	2040
GACCAAAACC AGTCGAACCA GTCGAAGGAT AAGACTTACC ACCTGTTGTG ACAATGAGTT	2100
TCTCACAAGT GAAGGTTTGA TCCGCTGACT TAAGGACAAA CTGGTCATCT ACTTTTTTAA	2160
CAGAAACGAT TTCTATTTGA GTAGCAACTT GACCACCTAG TTCGGTGATT TTCTTTTCCA	2220
AAGCTTCGAT AATAGTCCGA GACTTGTCAC TGGCTGGAAA GACGCGTCCG TGGTCTTCGA	2280
CCTTAAGTTT AACACCATT TCTGTAAAAA AGTTGATGAT GTCATGATTA TCGAACTGGG	2340
AGAAAAACT GTAAAGAAAG CGTCCGTTTC CAGGAATTCC AGCTAGCAGG TTGTCTAAGC	2400
TACCATTGTT GGTACATTG CAACGTCCCC CACCAGTCCC AGCTAATTTT TTTCCAAGTT	2460
TCCGATTTTT TTCGATGAGG AGGGTTTTCT GTCCATAAAA GCTACTGGAA ATCGTAGCCA	2520
TCATACCAGC AGGTCCCCCA CCGATGACAA TAGTATCAAA ATGTTTCATA GCTCTATTGT	2580
ACCACAAAAA AACAAGAGAT GATGGTCACC TCTTGTCAG AATGCAATTA ATCAATTTC	2640
TAGCCCATCA GCAAACCGCC CTCTTCTGCA TAGAACTGC AGAGACCAGA GGTGGTAGA	2700
ATTTTAATAT CCGCTTGTGG GAAGGTTTCA CGGATTCGCT CTGAGAGCTG TTGACAACAT	2760
TTTTCGTTAT TGCCTTGGGC CATGACAATA CGGCCACCAG CATATCCAGC TTTTACTAAC	2820
TCATCATAGG CAGCTTGAAC TGATTCTTT GATCCCTTG CTTTTGTAG CAATTCGAGA	2880

908

GTCCAGTTT CACTAGCTTT TCCGACCATA CGAATGTTGA GAAGGCCAAC GACCGTACCG	2940
ATAAGCTTGC TCAAACGGCC GTTCTTCACC AAGTTATCGA CTTTGGCTAG GACAAAGAGC	3000
AACTTAGTTT TTTCTTGATA GCGCGTGATA GCTTCAACCA CTTCTTCAAA AGACAAGCCC	3060
TGGTCAATCA AGTCATTCAA TTTTCTACG AGTAGGTCAA CTTCAACCACC AGCAGATAAA	3120
CTATCAATCA CATGAATCTT AGTGCAGGA TGGTCTTCCA GATAAATATT CTTTGCTAGT	3180
TGAGCACTAT TGTGACTGCC AGAAAGGGTA CCTGTGATGG TTAGTAGGAA AATGTTTTTG	3240
GCACCTTCAA ATGCTCGCAA ATAGTCATCT GGGCTTGGAC AAGCCGATTT TGAAGCTTCT	3300
GCAGTTGCAT ACATGGTTTC CATCATTTGG TCAATATCGA GACTGGCGTC ATCAACAAAG	3360
ACCTGATCAG CTACTTGAAT GGTTAAGGGG ACACTTACAA AGGTTGTGTT AATAGCTGGT	3420
GTTGGCAGTT GACGATAATC ACAACCAGAG TCAGCAATAA TCTTCCAAGT CATAGAAATT	3480
CTCCATCTTT GTCAGGAACG AT	3502

(2) INFORMATION FOR SEQ ID NO: 134:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12665 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 134:

CGATTGATTT TTTTAAAGCG TTCGATAGAG AATGAGAAAC GAATCCTTAG CAATGCCGGG	60
AAAGAATTG GAGTTGAGAA TACAAAACGA TTAACATGAG CTCATATTGT TTTTATCTC	120
TCTTGCTTGG TTGAGGCAAT GGTGCACAAG ACAATTTTGG ATGGCATGGG CATGGTTGGT	180
TTAGTCTTGC TTATTTTTTC TATGCTGATG TTGATGTTGG TGATTCACCT GTTGGGAGAT	240
ATTTGGACAG TGAAGCTTAT GCTTGTCAT AATCACAAAT ATGTAGATCA TATCTTGTTC	300
AGGACAGTAA AACACCCTAA TTACTTTTGA AATATCTTTC CTGAGTTGAT TGGCTTGACC	360
TTGTTGAGTC ATGCTTATGT GACTTTTGTG TTAGTTTTTC CAGTTTATGC AGTTATTTTG	420
TATCGACGAA TAGCTGAAGA GGAAAAGCTA TTACATGAAG TTATAATCCC AAATGGAAGC	480
ATAAAGAGAT AAATACAAAA TTCGATTTAT ATACAGTTCA TATTGAAGTG ATATAGTAAG	540
GTTAAAGAAA AAATATAGAA GGAAATAAAC ATGTTTGCAT CAAAAGCGA AAGAAAAGTA	600
CATTATTCAA TTCGTAAATT TAGTGTTGGA GTAGCTAGTG TAGTTGTTGC CAGTCTTGT	660
ATGGGAAGTG TGGTTCATGC GACAGAGAAC GAGGGAGCTA CCCAAGTACC CACTTCTTCT	720
AATAGGCGAA ATGAAAGTCA GGCAGAACAA GGAGAACAAC CTAAAAAACT CGATTGAGAA	780

909

CGAGATAAGG CAAGGAAAGA GGTGAGGAA TATGTAAAAA AAATAGTGGG TGAGAGCTAT	840
GCAAAATCAA CTAAAAAGCG ACATACAATT ACTGTAGCTC TAGTTAACGA GTTGAACAAC	900
ATTAAGAACG AGTATTTGAA TAAATAGTT GAATCAACCT CAGAAAGCCA ACTACAGATA	960
CTGATGATGG AGAGTCGATC AAAAGTAGAT GAAGCTGTGT CTAAGTTTGA AAAGGACTCA	1020
TCTTCTTCGT CAAGTTCAGA CTCTTCCACT AAACCGGAAG CTTGAGATAC AGCGAAGCCA	1080
AACAAGCCGA CAGAACCAGG AGAAAAGGTA GCAGAAGCTA AGAAGAAGGT TGAAGAAGCT	1140
GAGAAAAAAG CCAAGGATCA AAAAGAAGAA GATCGTCGTA ACTACCCAAC CATTACTTAC	1200
AAAACGCTTG AACTTGAAAT TGCTGAGTCC GATGTGGAAG TTAAAAAGC GGAGCTTGAA	1260
CTAGTAAAAG TGAAGCTAA CGAACCTCGA GACGAGCAA AAATTAAGCA AGCAGAAGCG	1320
GAAGTTGAGA GTAAACAAGC TGAGGCTACA AGGTTAAAAA AAATCAAGAC AGATCGTGAA	1380
GAAGCAGAAG AAGAAGCTAA ACGAAGAGCA GATGCTAAAG AGCAAGGTAA ACCAAGGGG	1440
CGGGCAAAAC GAGGAGTTCC TGGAGAGCTA GCAACACCTG ATAAAAAGA AAATGATGCG	1500
AAGTCTTCAG ATTCTAGCGT AGGTGAAGAA ACTCTTCCAA GCCCATCCCT GAAACCAGAA	1560
AAAAAGGTAG CAGAAGCTGA GAAGAAGGTT GAAGAAGCTA AGAAAAAGC CGAGGATCAA	1620
AAAGAAGAAG ATCGCCGTAA CTACCCAACC AATACTTACA AAACGCTTGA ACTTGAAATT	1680
GCTGAGTCCG ATGTGGAAGT TAAAAAGCG GAGCTTGAAC TAGTAAAAGA GGAAGCTAAG	1740
GAACCTCGAA ACGAGGAAAA AGTTAAGCAA GCAAAAGCGG AAGTTGAGAG TAAAAAGCT	1800
GAGGCTACAA GGTTAGAAAA AATCAAGACA GATCGTAAAA AAGCAGAAGA AGAAGCTAAA	1860
CGAAAAGCAG CAGAAGAAGA TAAAGTTAAA GAAAAACCAG CTGAACAACC ACAACCAGCG	1920
CCGGCTCCAA AAGCAGAAAA ACCAGCTCCA GCTCCAAAAC CAGAGAATCC AGCTGAACAA	1980
CCAAAAGCAG AAAAACCAGC TGATCAACAA GCTGAAGAAG ACTATGCTCG TAGATCAGAA	2040
GAAGAATATA ATCGCTTGAC TCAACAGCAA CCGCCAAAA CTGAAAAACC AGCACAACCA	2100
TCTACTCCAA AAACAGGCTG GAAACAAGAA AACGGTATGT GGTACTTCTA CAATACTGAT	2160
GGTTCAATGG CGACAGGATG GCTCCAAAAC AATGGCTCAT GGTACTACCT CAACAGCAAT	2220
GGCGCTATGG CGACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTATCT AAACGCTAAT	2280
GGTTCAATGG CAACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTACCT AAACGCTAAT	2340
GGTTCAATGG CGACAGGATG GCTCCAATAC AATGGCTCAT GGTACTACCT AAACGCTAAT	2400
GGTTCAATGG CGACAGGATG GCTCCAATAC AATGGCTCAT GGTACTACCT AAACGCTAAT	2460
GGTGATATGG CGACAGGTTG GGTGAAAGAT GGAGATACCT GGTACTATCT TGAAGCATCA	2520

910

GGTGCTATGA AAGCAAGCCA ATGGTTCAAA GTATCAGATA AATGGTACTA TGTCAATGGC	2580
TCAGGTGCCC TTGCAGTCAA CACAACGTGA GATGGCTATG GAGTCAATGC CAATGGTGAA	2640
TGGGTAACT AAACCTAATA TAACTAGTTA ATACTGACTT CCTGTAAGAA CTCTTTAAAG	2700
TATTCCCTAC AAATACCATA TCCTTTCAGT AGATAATATA CCTTGTAGG AAGTTTAGAT	2760
TAAAAAATAA CTCTGTAATC TCTAGCCGGA TTTATAGCCG TAGAGACTAC GGAGTTTTTT	2820
TGATGAGGAA AGAATGGCGG CATTCAAGAG GCTCTTTAAG AGAGTTACGG GTTTTAACT	2880
ATTAAGCCCT TCCTCAATTGC AAGAGGGTTT CAATCTCTGC CAGGGTGCTG GCTTGCGAAA	2940
TGGCTCCACG GAGTTTGGCA GCGCCAGATG TTCCACGGAG ATAGTGAGGA GCGAGACCGC	3000
GGAATTCACG AACTGCGACG TTTTCTCCTT TGAGGTTAAT CAATCGTTTC AAGTGTTCGT	3060
AGGCGATCTT CATCTTGCTT TCAAAGGTCA AATCAGGTAG GATTCTCCT GTTTCAAAGT	3120
AATGGTTGAT TTGGTTGAAG AGGTAAGGAT TTCCCATGGC AGCTCGGCCA ATCATGACTG	3180
CGTCAGCACC AACTTCTTCG ATGCGTTGCT TGGCTTCTTG GACAGTACGG ATATCACCGT	3240
TGGCGATGAA TGGAATCTTG GTTAGAGCTT GGGCAACCTT GTAAAGGGTC TCAAGGTCTG	3300
CGTGGCCAGT ATACATTGTG TCACGGGTAC GGCCATGCAT GCGGAGGGCA GAAACACCTG	3360
CAGCTTCAGC AGCGAGAGCA TTTTCTACTG CAAGAGATGG GTCCGCCAG CCGGTACGCA	3420
TTTTGACAGT AAGTGGGATA TCAAGGACAG ACTGGACCTT GTTGATGATG GAGTAAATCT	3480
TGCTGGATC CTTGAGCCAC ATAGCACCAG CTTCTTCTT CACGATTTTG TTGACAGGGC	3540
AGCCCATGTT GATATCGACG ATATCGGTCT TGGTGTTC TTGGATGAAT TCTGCTGCGC	3600
GTGCTAGGCT GTCTTCATCG CTACCAAAAA GTTGATAGA GACAGGGTTT TCGCCCTCAT	3660
CGATATGAAG CATGTGCAGG GTTTTTTCGT TGTTGTATTG GATTCCCTTG TCAGAGACCA	3720
TTTCCATTAC AACGAGTCCA GCTCCGAGCT CCTTTCGAT AGTACGAAAG GCTGAGTTGG	3780
TCACGCCAGC CATAGGCGCT AAAACGGTAC GATTGGGAAT CTCAATATTG CCAATCATAA	3840
AAGGTGTATT AAGATTTGTC ACGAATGAGT TCCTCCAGGT CCTTTTCATC AAAGTTGTAA	3900
GTAGTTTGGC AGAATTGACA AGTGATTCTT GCCCGTGGT CTTCTCTTT CATTTCCTGT	3960
AAGTCTGAGC TTGGAAGGCT GGCAAGAGCG TTCATAAAGC GTTCATGGCT ACAGTCACAT	4020
TGGAAACGGA TTTCTTCTTC AGAAAGACGC TTGTAGGCTT CGTCCCGTA GATAGCCTTG	4080
AGGAGGGCTT CGATATGGTC GTCGCTTTCG AGAAGAGTAG AGATAGCTGG CATTCTTGG	4140
ATGCGTTTTT CAAAGCGAGC AATCTCTTCT TTCTTGGCTC CTGGCAAGAC TTGAACTAGG	4200
AAACCACCTG CAACCTTGAC CTTGTCTTCC TCGTCCAAAA GGACATTGAG GCCGACCGCT	4260
GAAGCGTTT GTTGGCTTTC AGTAAGGTAA AAGGCAAGGT CTTACCGAT TTCTCCAGAG	4320

911

ATGAGGGGAG TTATAGAGTT GTAAGGATTT CAGTACCGT AGTCTGTGAT AACGAGGAAT	4380
TGACCATTTC CAACAAAAGG TCCGACTAGG ACTTCACCAG TCGCAGTCTT TTTGATGTCA	4440
ACACCAGGAT TTTGAACATA GCCTTTGACG TTCCCTTTGG TATCAGCGAC GGTGATAATA	4500
GCACCTAGAG AGCTAGATCC CAACACCTTA ACTGTAAGTT TGGTATTTCC TTTTTCATTG	4560
GCTGCGAGAA TCTGGCTAGC GATAAGAGTT CGACCAAGCG CTACAGTTGA GCTAGCTTGG	4620
GTTTGATGTT TTTCTTGAGC AGTGCGGACG GTTTCAGTGC TATCAAGGAC AAAAGCACGA	4680
AAGGcTCCGC TTTCTGATAT AGTTTTAATA ATTTTATCCA TAGCTACTAT TTTAGCATAA	4740
AAATGCCCAA AGGGGGAGCC GTGTGTTTAC TGATTTTCAG GATAATGGAC CAGGAAATCA	4800
GCATGAAAT AAAAAGAGAA ACAGATTATT TTAGCATTTG TCAGATTAT GCTATGCTTA	4860
AGGTAGAAAA TGAAAGGGAT AACAAATGTA TTTAGGAGAT TTGATGGAGA AAGCCGAGTG	4920
TGGTCAATTT TCAATACTTT CCTTCTATT ACAAGAGTCT CAGACGACCG TCAAGGCTGT	4980
AATGGAAGAA ACAGGATTTT CAAAAGCAAC CCTAACCAA TATGTCACCC TGCTCAATGA	5040
CAAGGCTTTG GATAGTGGCT TAGAGCTGGC TATCACTCA GAAGATGAAA ATCTGCGTCT	5100
GTCTATCGGT GCAGCTACCA AGGGGAGAGA TATTCGGAGC TTGTTTTTGG AGAGTGCTGT	5160
TAAATACCAG ATTTTGGTTT ATCTTCTCTA CCACCAACAG TTTTtagccc ATCAGCTGGC	5220
TCAAGAATTG GTGATTAGCG AGGCTACGCT TGGTCGTCAC TTGGCTGGTT TAAATCAGAT	5280
TTTGTcAGAA TTTGATTAT CCATCCAAAA TGGCCGTTGG CGAGGTCCAG AGCATCAGAT	5340
TCACTATTTc TATTTCTGTC TTTTCCGAAA GGTCTGGTCG AGTCAGGAAT GGAAGGTCA	5400
CATGCAGAAA CCAGAGAGAA AACAGGAGAT TGCCAATTTA GAGGAAATCT GCGGTGCAAG	5460
TTTGCTCTCG GGGCAGAAAT TGGACTTGGT TCTCTGGGCT CACATCAGTC AACACGTCT	5520
TCGGGTCAAT GCTTGTCAGT TTCAAGTCAT AGAAGAGAAA ATGCGAGGGT ATTTTGACAA	5580
TATCTTTTAT CTTCGTTTGC TGAGAAAGGT TCCGTCCTTT TTTGCTGGGC AACATATTC	5640
ACTAGGAGTT GAGGATGGTG AGATGATGAT ATTCTTCTCT TTTCTCCTAT CTCATCGCAT	5700
TCTTCTCTT CATACTATGG AGTATATCT TGGTTTTGGA GGGCAGTTGG CAGATTACT	5760
GACGCAATTG ATTCAAGAAA TGAAGAAGGA GGAActATTG GGGGATTATA CAGAGGACCA	5820
TGTCAcCTAT GAActCAGTC AGCTTTGTGC TCAAGTCTAT CTCTATAAGG GCTATATTTT	5880
ACAGGATCGC TACAAGTACC AGTTAGAGAA TCGTCATCCA TATTTACTGA TGGAACATGA	5940
TTTTAAAGAG ACAGCAGAGG AGATTTTTCa TGCTCTACCT GCTTTTCAAC AGGGGACAGA	6000
TTTAGATAAG AAGATTCTCT GGGaATGGCT CCAGTTAATC GAATATATGG CTGAAAACGG	6060

912

TGGCCAGCAT ATGCGGATTG GTCTGGATTT GACATCTGGT TTTCTTGTCT TTTCAAGGAT	6120
GGCAGCCATT TTGAAACGGT ATTTGGAATA CAATCGTTTT ATTACCATTG AAGCTTATGA	6180
CCCTAGTCGG CATTATGATT TGCTGGTTAC CAATAACCCG ATTCATAAGA AGGAACAGAC	6240
ACCAGTCTAT TATTTAAAAA ATGACTTGGA TATGGAGGAT TTGGTAGCGA TTCGCCAGTT	6300
ATTATTCACT TAAAAGGCTT GGTAAATCCA GGTCTTTTTT GTGAAATCA CACAATCTCC	6360
TCACATTTTT TAAAAATTA AAAAAAGTTG ATAAACAAGA AAGCGCTTTA TTTTGTATAC	6420
TAGTAAGTGT AAAGAGGAAA CACCTCAAGA TCTTTATCAG GAGGACAGTA CATGTCACAA	6480
GAAAAATACA TCATGGCCAT TGACCAGGGA ACTACAAGTT CTCGTGCCAT CATTTTCAAC	6540
AAAAAAGGGG AAAAGGTTAG CTCGAGTCAA AAAGAGTTTA CCCAGATTTT CCCTCAGGCA	6600
GGTGGGGTTG AGCACAATGC CAATGAAATT TGGAACCTCTG TTCAGTCAGT TATTGCGGGT	6660
GCTTTCATCG AAAGTGGTGT CAAGCCAAAT CAAATCGAGG CAATCGGGAT TACCAACCAA	6720
CGTGAAACAA CGGTTGTCTG GGATAAGAAA ACAGGACTTC CTATCTACAA TGCTATCGTT	6780
TGGCAGTCAC GCCAGACAGC ACCTTTGGCT GAGCAACTAA AAAGCCAAGG TTATGTGGAA	6840
AAATTCATG AAAAGACTGG TTTGATTATT GATGCTTACT TCTCTGTAC CAAGGTCGT	6900
TGGATTTTGG ATCATGTAGA AGGTGCTCAA GAGCGAGCAG AAAAAGGGGA ATTGCTCTTT	6960
GGTACTATCG ATACTTGGTT GGTTTGGAAA TTGACTGACG GTGCGGCTCA CGTGACTGAC	7020
TACTCAAATG CAGCTCGTAC CATGCTTTAT AACATTAAAG AACTCAAATG GGATGATGAG	7080
ATTTTGGAAA TCCTTAACAT TCCGAAGCT ATACTTCCAG AAGTTCGTTT TAACTCCGAA	7140
ATCTACGGCA AGACAGCTCC ATTCCATTTT TACGGTGGAG AGGTGCCAAT CTCAGGTATG	7200
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AATACTTATG GAACAGGCTC TTTCATCATC ATGAATACTG GGAAGAGAT GCAGTTGTCT	7320
GAAAACAACC TCTTGACAAC CATTGGTTAC GGAATCAACG GTAAGGTTTA TTATGCCTTG	7380
GAAGGTCTTA TCTTCATCGC AGGAAGTGCT ATTCAGTGGC TTCGTGACGG TCTTCGCATG	7440
GTTGAAAATT CACCAGAATC TGAAAAATAC GCTCGTGATT CTCACAACAA CGATGAAGTT	7500
TATGTCGTTT CAGCCTTTAC AGGTCTAGGC GCTCCATACT GGAACCAAAA TGCTCGTGGT	7560
TCCGTCCTTG GTTTGACTCG TGGAACAAGC AAAGAAGACT TTATCAAGGC GACTTTGCAA	7620
TCTATTGCTT ATCAAGTGCG TGATATCATC GACACCATGC AAGTGGATAC TCAGACCGCC	7680
ATTCAAGTAC TGAAGGTGGA TGGTGGTGCA GCCATGAACA ACTTCCTCAT GCAGTCCAG	7740
GCGGATATTT TAGGCATTGA CATTGCACGT GCTAAAAACC TGGAAACAAC AGCTCTAGGA	7800
GCGGCCTTCC TAGCAGGTTT GTCAGTAGGG TACTGGAAAG ACTTGGACGA GTTGAAACTC	7860

913

TTGAACGAGA CAGGAGAAGCT CTTTGAGCCA TCTATGAACG AATCTCGCAA GGAACAACCTC	7920
TACAAGGGCT GGAAGAAGGC TGTGAAAGCA ACTCAAGTCT TTGCGGAAGT AGACGACTAA	7980
TACTGGCAGA ATAAACCGAT TTATTTAGAA AGTGTGTAAA TATGGAATTT TCAAAGAAAA	8040
CACGTGAATT GTCAATTAAA AAAATGCAGG AACGTACCCT GGACCTCTTG ATTATCGGTG	8100
GAGGAATCAC AGGAGCTGGT GTAGCCTTGC AGGCGGCAGC TAGCGGTCTT GAGACTGGTT	8160
TGATTGAAAT GCAAGACTTT GCAGAAGGAA CATCTAGTCG TTCAACAAAA TTGGTTCACG	8220
GAGGACTTCG TTACCTCAAA CAATTTGACG TAGAAGTGGT CTCAGATACG GTTCTCTGAAC	8280
GTGCAGTGGT TCAACAAATC GCTCCACACA TTCCAAAATC AGATCCAATG CTCTTACCAG	8340
TTTACGATGA AGATGGAGCA ACCTTTAGCC TCTTCCGTCT TAAAGTAGCC ATGGACTTGT	8400
ACGACCTCTT GGCAGGTGTT AGCAACACAC CAGCTGCGAA CAAGGTTTGT AGCAAGGATC	8460
AAGTCTTGGA ACGCCAGCCA AACTTGAAGA AGGAAGGCTT GGTAGGAGGT GGAGTGATC	8520
TTGACTTCOG TAACAACGAT GCGCGTCTCG TGATTGAAAA CATCAAACGT GCCAACCAAG	8580
ACGGTGCCCT CATTGCCAAC CACGTGAAGG CAGAAGGCTT CCTCTTTGAC GAAAGTGGCA	8640
AGATTACAGG TGTGTAGCT CGTGATCTCT TGACAGACCA AGTGTTTGAA ATCAAGGCC	8700
GTCTGGTTAT TAATACAACA GGTCTTGGGA GTGATAAAGT ACGTAATTTG TCTAATAAGG	8760
GAACGCAATT CTCACAAATG CGCCCACTA AGGGAGTTCA CTTGGTAGTA GATTCAAGCA	8820
AAATCAAGT TTCACAGCCA GTTTACTTCG ACACAGGTTT GGGTGACGGT CGTATGGTCT	8880
TTGTCTCTCC ACGTGAAAC AAGACTTACT TTGGTACAAC TGATACAGAC TACACAGGTG	8940
ATTTGGAGCA TCCAAAAGTA ACTCAAGAAG ATGTAGATTA TCTACTTGGC ATTGTCAACA	9000
ACCGCTTCCC AGAATCCAAC ATCACCATTG ATGATATCGA AAGCAGCTGG GCAGGTCTTC	9060
GTCCATTGAT TGCAGGGAAC AGTGCCTCTG ACTATAATGG TGGAAATAAC GGTACCATCA	9120
GTGATGAAAG CTTTGACAAC TTGATTGCGA CTGTTGAATC TTATCTCTCC AAAGAAAAAA	9180
CACGTGAAGA TGTTGAGTCT GCTGTCAGCA AGCTTGAAAG TAGCACATCT GAGAAACATT	9240
TGGATCCATC TGCAGTTTCT CGTGGGTCTA GCTTGGACCG TGATGACAAT GGTCTCTTGA	9300
CTCTTGCTGG TGGTAAAATC ACAGACTACC GTAAGATGGC TGAAGGAGCT ATGGAGCGCG	9360
TGGTTGACAT CCTCAAAGCA GAATTTGACC GTAGCTTTAA ATTGATCAAT TCTAAACTT	9420
ACCGTGTTTC AGGTGAGGAA TTGAACCCAG CAAATGTGGA TTCAGAAATC GAAGCCTTTG	9480
CGCAACTTGG AGTATCACGT GGTTTGGATA GCAAGGAAGC TCACTATCTG GCAAATCTTT	9540
ACGGTTCAAA TGCACCGAAA GTCTTTGCAC TTGCTCACAG CTTGGAACAA GCGCCAGGAC	9600

914

TCAGCTTGGC AGATACTTTG TCCCTTCACT ATGCAATGCG CAATGAGTTG ACTCTTAGCC	9660
CAGTTGACTT CCTTCTTCGT CGTACCAATC ACATGCTCTT TATGCGTGAT AGCTTGGATA	9720
GTATCGTTGA GCCAATTTTG GATGAAATGG GACGATTCTA TGACTGGACA GAAGAAGAAA	9780
AAGCAACTTA CCGTGCTGAT GTCGAAGCAG CTCTCGCTAA CAACGATTTA GCAGAATTAA	9840
AAAATTAAGA AAAAATAAAA GAGGTGGAGG GCAGCATTC TGTGCGCCG TCCCTTCTTT	9900
TTAATGGAGA CAGAAAGATG ATGAATGAAT TATTTGGAGA ATTTCTAGGG ACTTTAATCC	9960
TGATTCTTCT AGGAAATGGT GTTGTGTCAG GTGTGGTTCT TCCTAAACC AAGAGCAATA	10020
GCTCAGGTTG GATTGTGATT ACTATGGGTT GGGGGATTGC AGTTGCGGTT GCAGTCTTTG	10080
TATCTGGCAA GCTCAGTCCA GCTTATTTAA ACCCAGCTGT GACCATCGGT GTGGCCTTAA	10140
AAGGTGGTTT GCCTTGGGCT TCCGTTTTGC CTTATATCTT AGCCCAGTTC GCAGGGGCCA	10200
TGCTGGGTCA GATTTTGGTT TGGTTGCAAT TCAAACCTCA CTATGAGGCA GAAGAAAATG	10260
CAGGCAATAT CCTGGCAACC TTCAGTACTG GACCAGCCAT CAAGGATACT GTATCAAAC	10320
TGATTAGCGA AATCCTTGGA ACTTTTGTCT TGGTGTGAC AATCTTTGCT TTGGGTCTTT	10380
ACGACTTTCA GGCAGGTATC GGAACCTTTG CAGTGGGAAC TTGATTGTC GGTATCGGTC	10440
TATCACTAGG TGGGACAACA GGTATGCCT TGAACCCAGC TCGTGACCTT GGACCTCGTA	10500
TCATGCACAG CATCTTGCCA ATTCCAAACA AGGGAGACGG AGACTGGTCT TACGCTTGGA	10560
TTCTGTTGT AGGCCCTGTT ATCGGAGCAG CCTTGGCAGT GCTTGTATTC TCACTTTTCT	10620
AGTTTATACT CTTGAAAAT CAAATTCAAA CCACGTCAGC GTCGCCTTAC CGTACTCAAG	10680
TACAGCTTGC GGCTAGCTTC CTAGTTTGCT CTTTGATTTT CATTGAGTAT TAGAAAACAA	10740
TTATGTTGAT AGAGCTTGGG CAAGAGCCCA ATTTGAGCAA AAAATGAAGT AAATCTTCTC	10800
ATAATAAAC GCATCATATC AAGCAGAAA ATTCCACGAG GTCAACTACA GTCAGAAAGC	10860
TGAACAACAA GCCAAAACGC CCAAAAAAGG CGGCAAAAAG CAAGCACCTG CAAGCAACGT	10920
GCCGAAATGG TCAATCCTG ATTATGTCAA CGAATTAGAC CCAAAAATCG TTGATATGCT	10980
AGTAGAATTT CACAAGTCAC AAGGCACTTT GGAACCTCCC GAGGCGCAAG CAGAAATCGC	11040
CCAAAACGT GAAGAAATCG AGCAAAGGAG AGCTGAGCTT GAGGGTAAAA AACAGAGCT	11100
TTTGAACCGC TTGAACAAAT AGAGTTTCGC AAGTATTATG CTTACAAATT ACTTGAGCAA	11160
TTAACTAAAA TATAAACCTT GCCTTTATAT CTAGGCAGGG TTTATATTTT AGAAATTCAC	11220
GTAGGTTGTT ACGGTTTTTA CATACCCAGT ATAGTTTGAG TTCTATAGT ATTCAGTGAT	11280
AAACTTCCAT TTTCTTTGAG CAACATGGAT ATAAGTACTT GTTATGTAGT ATGGATATGG	11340
GCTTTGTGAA TCCAAGTAAG ACTGATAAGC TTGTATACCA AAATATGCTC CACCAATTAT	11400

915

TGCACCCCAT GGACCCCCA ATAAAGCACC TATCCTACCA ATCATATAAC TGATTCCAGC. 11460
 ACCAGTCATG AAGTTAGCGA ATGTGTTAGC TTGTTTATTC CCATGTATTG TGTGACGTA 11520
 ATTCCAAACA TTAGGATCGT ATGATCTAAA AGATATATTT AGGTCGATTT CATTCTTTTG 11580
 ATAAGCCATA TAAATGCCC CATTGATATA GACGCCGTCA GCACGTCGTT CAATAGTGTG 11640
 TACACTTCCA TCTGGATTGA CAACCTCAAG AACTTCATCG CTAAAAATAT TTACTTGCCT 11700
 ATCTCCGAAC CGCACTGATG AGCCATTCTC AAAGTGAAGC TCACCAGATA CAACCTTAGA 11760
 GTTGCCGAT AAGCTATCAT CAGCAAAAAC AAACAAGCGA CGGGGAAATG CTAGACATAC 11820
 AGAAAAACA CATAACTAGC AAACACATGC ATTTAAACAT CTAGACATA ACGGAAACTC 11880
 CTTTGTATTT TTGATTTTTT TCAACTTTTA TTATACAATA AAACCAAATA AAAAGAAAGC 11940
 GGTAACAATA TGCTTAATGC GAAAATTTTT TATATATTTT TATGTTTGAT CGTTATCGAA 12000
 ACTACAGGCT TGTTGTGTTT GAAAGAGGT CTCGAAATGG GTTATTTAGA CACAGAAGCT 12060
 ATTATCCTCG CAGTTTTTTC ATTTGCTTTT TACAACCTAT GTTCATTTCG TTGGGTCTGC 12120
 TCTACAATAA AAAACAATAA AAAATAAATA GACGTATTTT CAAAAAAAC maAATGCATA 12180
 TTTATATTAG CAAACGACG ATTTAAATCG TCGTTTTTTT GTAGTACGAC GGGCATGTCTG 12240
 TATATCTGAG GTGTAAGTCC TCAGCCTGAC TATCGTGAGG TAGCAGGGAG AGGAAGGGAT 12300
 AGCGAAATCG TGGCTCTACG AACAGGAACG TGATAGTAAG GCGTATATAG CGGATAAGGA 12360
 GGCTTCAAAC TCTAAGTCC AAAAAGGTAG TCGTAACCTA TATGTGTAAG TCACGAGAGT 12420
 AATTGAATTC GGACTAAGGT TTGTGTGAAA AAGATAAATC TTTCTAGAGT CTAAAGACTC 12480
 TCGTTCAGAT TTCCTATTTT CACTGTAAAC TTTTAACGTC CTCATATCTT GTATAAACGA 12540
 GGAAAGATGT ACGACTTATC CCGTGAGGTT TCATGAGCGT GAAAGCGTAG TAACAACGAA 12600
 TCATGAGAAG TCAGCCGAGC CCATAGTAGT GAGGAAACTT CCGTAATGGA AGTGGAGCGA 12660
 AGGGG 12665

(2) INFORMATION FOR SEQ ID NO: 135:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5305 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi). SEQUENCE DESCRIPTION: SEQ ID NO: 135:

CGCTAATCAC TACAATCATT TTATTGTACT TTTTCACTCT CAAGAAAAGC AAGAAGTATT 60

916

CATTTTAGTT TCATTTAGTA TTATTTTGCA TACCTAAAA ATCAGTAAATA ATCAGTCATC	120
TTGGTATGCT CTGCTTTCA CTATTCAACA CGTTTTTGAC TTATACTAGG CTCATTTCCA	180
AAAGCATTAT ATAATAGTGA TATGAAACCA ACTAAACTAA ACAAGAAATA TAAGCAATAA	240
AAATTCGTTT AAAAGATCTT ACTAAAGCTA ATACTAAATA AAAATAAAG AGTAAACTAG	300
GAAGTTTATT TCAAACAACC TAAATACTG ATTTTCGGCT GAAGATAATA CTGGAGTGCA	360
AATTAATGGG GTTATAATAA ATAGCTGATA GCTTGTGTG GTTTTGGATT TTTTAAGAGT	420
AGATGAGTAT TAAACTATA AGGAGGACGA AGGTGGCTAA AAATTTAAAA TTAATATTAG	480
CTCGGTAGTA GCGTGATTTA ACACAAGGTC AACTGGCAGA GGCTGTGGG GTGACACGCC	540
AGACTATTGG TTTAATAGAG GCGGGAAAAT ACAATCCCAG TCTCTCGCTC TGCCAGTCTA	600
TTTGCAGATG TTTAGGAAA ACCCTAGACC AACTATTTTG GGAGGAAGAA GATGAAAAAT	660
AGATTTTATT ATTCTCAAT ACTAGACGAA AGAGAAGAAC AACTGTTCAA TAAAGCGGGC	720
TCTGAAAGTT TCTATATCTG CATTGCTTTG TCGCTCCTAT CTTATATCAT TTCAGTATTA	780
GCACCAAGCC TTTTAATTC TAATATGCTG CTAATCGTTA TCATCATAGG GACATTTTAC	840
TTTTTCAATC GTGCCCGTTA TCTGGGAGTG ACCTACTATG GTCGTTTTCA TTTTACGATT	900
TTGGGTGTT TTTTCTAAC CTTGGCTATT ACGGCTCTT TGATGTTGCA GAATTATCAA	960
TTCAACATAG AAATTTATCA GCACAATCCT TTGAATTTTA AATACCTGTC TGCTTGGGTC	1020
ATTACTTATA TCATTTACCT TCCGTGGATC TTTATTGGCA ATCTTGGTCT TAAGAGCTAT	1080
GGCGAATGGG CTCAGAAAAA ATTTGAACAA GATATGGATG AATTGGAGAG TGGAGAATAG	1140
CTTGTTACTC TTTTCTCAAT CCAGCTAAAA TGTGATATAA TAGTACTAAT TTATTGGAAT	1200
ACATGAAAGT TCTTGAAAAT TTTTATGGGT TTCTAGCTAA GGAAGTAGGA AAAGTATGTA	1260
TCCAGATGAT AGTTTGACAT TGCACACGGA CTTGTACCAG ATCAACATGA TGCAGGTTTA	1320
CTTTGACCAA GGGATTCAACA ATAAGAAGGC GGTCTTTGAG GTGTATTTCC GCCAACAGCC	1380
TTTTAAGAAC GGCTATGCGG TTTTGCAGG TTTAGAAAGA ATTGTAAGT ATCTTGAAGA	1440
CTTGCCTTTT TCAGATAGTG ATATAGCCTA TTTGGAGTCG CTTGGTTATC ATGGGGCGTT	1500
CTTGGATTAC CTTGCAATT TCAAGTTGGA GTTGACCGT CGTCTGCCCC AAGAAGGGGA	1560
TTTGGTTTTT GCTAATGAAC CGATTGTGCA GGTGGAAGGA CCTCTAGCCC AATGTCAGTT	1620
GGTCGAAACG GCTCTTTTGA ACATCGTCAA CTACCAGACT TTGGTGGCGA CGAAGGCAGC	1680
TCGTATTCGT TCGGTTATCG AAGATGAACC CTTGATGGAG TTTGGGACAC GTCGGGCTCA	1740
AGAAATGGAT GCGGCCATCT GGGGAACACG CGCAGCTGTG ATTGGTGGCG CCAATGGAAC	1800
CAGCAACGTG CGTGGGGTA AGCTCTTTGA CATTCCTGTT TTGGGAACCC ATGCCCATGC	1860

917

CTTGGTACAG GTTTATGGCA ATGACTATGA AGCTTTCAAG GCTTACGCTG CGACCCACAA	1920
AAATTGTGTC TTTCTTGTGG ATACCTATGA CACCCTTCGC ATCGGTGTAC CAGCTGCCAT	1980
TCAGGTGGCG CGTGAGCTGG GTGATCAGAT TAACTTTATG GGTGTGCGGA TTGACTCTGG	2040
GGATATTGCC TACATTTCTA AGAAAGTCCG TCAGCAACTG GATGAGGCTG GATTTACAGA	2100
GGCTAAGATT TATGCTTCTA ATGATCTAGA TGAAATACC ATCCTTAACC TCAAGATGCA	2160
AAAGGCCAAG ATTGATGTCT GGGGTGTGGG TACCAAGCTG ATTACAGCCT ATGACCAGCC	2220
GGCTCTTGGG GCGGTTTACA AGATTGTTGC AATCGAAGAT GAAACTGGTC AGATGCGCAA	2280
TACGATTAAG CTGTCTAATA ATGCTGAAAA AGTTTCTACG CCAGGTAAGA AGCAGGTGTG	2340
GCGCATTACC AGTCGTGAAA AAGGCAAGTC AGAAGGCGAC TATATCACTT ATGATGGTGT	2400
GGATATTAGC GACATGACAG AAATCAAGAT GTTCCATCCG ACCTATACAT ACATCAAGAA	2460
GACGGTTCGT AATTTTGATG CCGTTCCTCT CTTGGTGGAT ATCTTCAAAG AAGGAATATT	2520
AGTTTACAAC TTGCCTAGTT TGACTGACAT TCAGGATTAT GCCCGTAAGG AATTGACAA	2580
GTGTGGGAT GAGTATAAGC GTGTGCTCAA TCCGCAGCAC TATCCAGTGG ATTTGGCGCG	2640
TGATGTATGG CAAGATAAGA TGGACTTGAT TGATAAGATG CGCAAGGAAG CCCTTGGTGA	2700
AGGAGAAGAA GAATGAGTTT GCAAGAAACG ATTATCCAAG AGCTGGGTGT CAAACCAGTG	2760
ATTGATGCCC AGGAAGAAAT CCGTCGTTCT ATTGATTCTT TAAAAAGATA TCTGAAAAAA	2820
CATCCCTTCC TAAAAACCTT TGTACTAGGG ATTTCTGGGG GACAAGACTC AACCTTGGCA	2880
GGACGTTTGG CGCAATTAGC TATGGAAGAA CTGCGAGCTG AAACGGGAGA CGATAGCTAC	2940
AAATTTATCG CTGTCCGCCT GCCATACGGA GTGCAAGCTG ATGAAGCAGA TGCTCAAAAA	3000
GCCCTAGCCT TCATCCAGCC AGATGTCAGC TTGGTTGTGA ATATCAAGGA ATCAGCTGAT	3060
GCCATGACAG CTGCAGTTGA AGCGACAGGT AGTCCTGTTT CAGACTTCAA CAAGGGGAAT	3120
ATCAAGGCAC GTTGCCGTAT GATTGCTCAG TATGCCCTTG CTGGTTCCCA TAGCGGAGCG	3180
GTCATTGGAA CAGACCACGC CGCGGAAAAAT ATCACAGGTT TCTTTACCAA GTTTGGTGAC	3240
GGCGGTGCGG ATATTCTCCC TCTTTACCGC CTCAATAAAC GCCAAGGAAA ACAGCTCTTG	3300
CAGAACTTG GCGCAGAGCC AGCCCTTTAT GAAAAATCC CAACGGCAGA CCTAGAAGAA	3360
GATAAACCG GCCTAGCTGA CGAAGTCGCA CTTGGAGTCA CCTACGAGA GATTGACGAC	3420
TACCTAGAAG GCAAAACAAT CAGCCCAGAA GCTCAAGCGA CCATTGAAAA CTGGTGGCAC	3480
AAAGGCCAAC ACAAACGCCA CTTACCCATC ACCGTATTTG ATGACTTTTG GGAGTAAAAA	3540
GGTCCGGGGG ACCTTTTtag CTTCTTGCCC TGAAATTAAA AAGCAAGAAA AACCTCCACT	3600

918

GGAGGTTTTC AGCCTCTCAT CTTGAAATAA GAAAGTGAGA GAAGGTCTGG GGGATCTTGA	3660
ACCCCGAGTT TAGAAATAAG AAAATGAGGC AGATTTCAGTA ACTCGAAGAG TTCGATTTC	3720
TCGCTCTTACC CCTGCAACGA TGACTAGGTT TGAAAAAGCT TGCTAGAGCG CATTTCAAAC	3780
CAGGCAGCAA CTGCGTCAAG AAATTAGAAG ACAAACCTCGT TTTCTAGCTG TTAGTGAGTT	3840
GAGCCTTTTT ACTACGAGTA TAGAAATAAG GAAGTGAGGT AGCATCATGA AATCTATCGG	3900
TACGCAAATA TTACAGACAG AACGTTTGAT TTTAAGAAGA TTTGTGGAGA GTGATGCAGA	3960
AGCCATGTTT CAAAATGGG CTTTCATCCGC TGAGAATCTG ACCTATGTTA CCTGGGATCC	4020
CCATCCTGAT GTCGAAATCA CTCGAACTC GATTGCAAT TGGGTTGCTT CCTATACTAA	4080
TCTCAACTAT TATAAATGGG CCATTTGTCT AAAAGAAAAC CCAGAGCAAG TAATAGGAGA	4140
TATCAGCATT GTTAAGATAG ACGAGGCTGA TTTAAGCTGT GAAATTGGCT ATGTGTTAGG	4200
CAAGGCTTAC TGGGGAATG GTATGATGAC AGAGACTTTG AAAGCTATCT TGGACTTTTG	4260
TTTTACTCAA GCAGGTTTTT AAAAGGTCAG AGCACGTTAT GCCAGTCTCA ACCCAGCTTC	4320
AGGTCGTGTC ATGGAAGAG CTGGAATGTC CTATCTACAA ACCATTGTTA ATGGTGTAGA	4380
GAGAAAAGGC TATCTTGC GG ATCTTATTTA TTATGGTATA AGTAGGGAAG AATGTTGAAT	4440
TCTATTTTCT GTTCTATCG AAGTCAACTA TTTATTGTAA ATATAATAAT TAGCATTC	4500
AGTTTATTTG AAACTTTAAA ATAGCATATT GATTAGTACA AGACAGATGT TCTAGTTCCT	4560
TCTTTAATCT GGTTTAGTGT TAGTTAAAA ATCGCTTTAA GCTTGTAAC AAGAGGGAGC	4620
TAATCGACTA GATTCTCCAG CCGAACAGGI GGTAATGTAC TTTTATAGT GTAATCCTAG	4680
CTGTTGTAA ATTTAAAATA GAATCCTCTA TCGAGTTAGG GAATTAAATT CAACCAATTT	4740
TATTATGTT TTTTCTATCA AATTATCTAA TATTAAAATA GTCTCATTCT GATGAGAAAA	4800
CTATTCCCAA ATCATTCTA CCTCTCTCAA CTAGATGTAA CTTACAAAAC CCCTGACCTC	4860
ATGAGCCACT TTCTTCTCC TCATGAGGTC AGTTTTACTT TCTGCTGTT CAGTATCGTT	4920
TTTCTCTGCT AGATTTCTCT AAAAGGGCAG ACTCCTCCCT TGGTGCCTCA CACGATTTTT	4980
TCATCTCGAC TGTCTTTTAA TGCATCATT ACGACGCTTT TCTTCTAGGT GGTTCATAAG	5040
GAACAGGAAG ATTACAGGTT ACTTTTCTAA TCCTAGAATA AAGTGCTGAA AACAATTCGG	5100
AATAGGCATA GAGACTAGAC AATTGAGGA GCTGCTTGCG TCCTGTTCTGA ACACATTTTC	5160
CCACCACGTG AAGAAAAGA TGGCGGAAGC GTTTGATTGT TAAAGTTTGG AAGTCACCTC	5220
CAGCTAGATG TTTGAGAAAA AGATAGAGAT TGTAGGCGAT ACAGCTCATC ATCATACGAA	5280
CTTCGTTTTT GATTAAGGTT GAAC	5305

(2) INFORMATION FOR SEQ ID NO: 136:

919

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3964 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 136:

TGGCAGCTCG TCGTCGTAAA GGACGCAAAG TTTTGGCTGC ATAATCCAAA CGAATTCTAT	60
CAAAAATCAG TAGGAAGTCG AGTCTACTGA TTTTATTTT TGTA AAAAAG TTCAGTAGAT	120
GCAAAATGGAT TCGGAAGCGA TGTACAGTA GATTGAACT AGAATAGTAC ACCTCTGTTT	180
CTAAAACATT GTTAGAAATC GATTGACTG TCCTGATCGA TTTGTCCTGT TATTATTTTA	240
TTTACTATA AAGTTGAAGT AGGTGGAGAT GGTACAGCAA CAATCGTCTT TAAAGATGGT	300
TCAGCTATTA CAATCCAGG AAATCAATTG GTAGCACAAG ATCCAAAAGC ACAAGATAGC	360
ACTAAACTGA CTGCTGAAAA ATCAACTGTT AAAGCACCTG CTCAAAGAGT AGATGTAAAA	420
GATATAACTC ATTTAACAGA TGAAGAAAAA GTTAAGGTTG CTATTTTACA AGCAAATGGT	480
TCAGCATTAG ACGGAGCGAC AATCAATGTA GCTGGAGATG GTACAGCAAC AATCACATTC	540
CCAGATGGTT CAGTAGTGAC GATTCTAGGA AAAGATACAG TTCAACAATC TGCGAAAGGT	600
GAATCTGTAA CTCAAGAAGC TACACCAGAG TATAAGCTAG AAAATACACC AGGTGGAGAT	660
AAGGGAGGCA ATACTGGAAG CTCAGATGCT AATGCGAATG AAGGCGGTGG TAGCCAGGCG	720
GGTGGATCAG CTCACACAGG TTCACAAAAC TCAGCTCAAT CACAAGCTTC TAAGCAATTA	780
GCTACTGAAA AAGAATCAGC TAAAAATGCC ATTGAAAAAG CAGCCAAGGA CAAGCAGGAT	840
GAAATCAAAG GCGCACCGCT TTCTGATAAA GAAAAAGCAG AACTTTTAGC AAGAGTGGAA	900
GCAGAAAAAC AAGCAGCTCT CAAAGAGATT GAAATGCGA AAATATGGA AGATGTGAAG	960
GAAGCAGAAA CGATTGGAGT GCAAGCCATT GCCATGGTTA CAGTTCCTAA GAGACCAGTG	1020
GCTCCTAATG CTGCTCCTAA GACAACAAGT GCACCGCAAG CAACTGCAGG AACAATGCAA	1080
GATGTTACCT ACCAGTCACC TGCTGGCAAA CAATTACCTA ACACAGGTTT AGCATCAAGT	1140
GCAGCACTTG CTAGCTTGG TCTAGTGGTG GCAACAAGTG GTTTTGCTTT GCTAGGAAGA	1200
AAGACTAGAC GTAGAAAATA GAACAGCTAG AAAATTCTAT TCTCTACTTA AAGTTAGATT	1260
ATAAGGGGGA TTTTGAGAAG TCATCAATCC TAGTGATGGG TGAGAAAAGT GAGAACCCAA	1320
GATAATCACA TACTTTAGCT GAATAGGAAT ATTCTATCAA TGTAGCCAAT CTCTTCTGTC	1380
TCTAACTGTG GAATAGGAGA TGGGCAATAT CGGATAGAAA AGATAGCAGA ATAGCTCTCT	1440

920

ATTGAAGAGA GGAGGGGAAA CCGAAAAATT AGGTGCCCCCT CCTCTTTTTT GGTATAATAG	1500
AAGATAGAAA ACGAGGTTAG AAGAGATGAT TTTTGATACA CATACACACT TGAATGTAGA	1560
AGAATTTGCA GGTGCGTGAGG CAGAAGAAAT TGCCTTGGCT GCTGAGATGG GTGTGACACA	1620
GATGAATATT GTTGGTTTTG ATAAACCGAC GATTGAGCAT GCCTTGGAGT TGGTAGATGA	1680
GTATGAGCAG CTCTATCGCA CTATTGGTTG GCATCCTACA GAAGCTGGTA CTTATACAGA	1740
GGAAGTTGAG GCTTACTTGT TGGATAAGTT AAAACATTCC AAGGTTGTGG CTTTAGGTGA	1800
AATTGGCTTA GATTACCATT GGATGACAGC GCCCAAAGAG GTGCAGGAGC AGGTTTTTCG	1860
CCGTCAGATT CAGCTATCTA AGGACTTGGA TTTGCCTTTT GTTGTCCTATA CCCGTGATGC	1920
GCTGGAAGAT ACCTATGAGA TTATCAAGAG TGAGGGCGTT GGTCTCGTG GTGGTATCAT	1980
GCATTCAATT TCAGGGACGC TTGAGTGGGC AGAGAAGTTT GTGGATCTTG GTATGACCAT	2040
TTCTTCTCA GGAGTGGTGA CTTTAAAGAA GGCAACTGAC CTCCAAGAAG CAGCTAAAGA	2100
GTTACCTTTG GACAAGATGT TGGTGGAAAC AGATGCGCCT TACTTAGCAC CTGTACCCAA	2160
GCGTGGTCGT GAAAATAAAA CAGCCTATAC TCGCTATGTG GTCGACTTTA TCGCTGACTT	2220
GCGTGGTATG ACGACAGAAG AGCTGGCGGT AGCAACGACT GCAAATGCAG AACGAATTTT	2280
TGGAAGTGGAC AGCAAGTAAT GAAAGAGAAA ATTTCTCAAG TTATCGTGGT TGAAGGGCGT	2340
GATGATACGG TCAATCTCAA ACGTTATTTT GATGTGGAGA CCTATGAGAC TCGAGGTTCT	2400
GCCATCAATG CTCAGGATAT AGAGCGGATT CAGCGCCTGC ACCAACGTCA TGGAGTCATT	2460
GTCTTTACAG ACCCAGATTT TAATGGGGAA CGGATTCGGC GCATGATCAT GATGGTCATT	2520
CCAACAGTTC AGCATGCCTT TCTCAAGCGA GATGAAGCTG TTCCCAAGTC CAAGACCAAG	2580
GGGCGTTCTC TGGGAATTGA GCATGCCAGC TATGAAGACC TGAAAACGGC TCTAGCTCAA	2640
GTGACAGAAC AATTGAACA TGAGAGTCAG TTTGACATTA GTCGTAGCGA TTTGATTCGC	2700
CTTGGTTTTT TAGCAGGGGC AGACAGCCGT AAGCGTAGAG AATATCTCGG AGAGACTCTC	2760
CGAATCGGCT ATTCCAACGG CAAGCAACTC CTCAAACGCC TAGAGTTGTT TGGGGTTACT	2820
TTGGCAGAAG TGGAAGAAGC TATGAAATCT TATGAGTAGG AAAGATGTAG CCGTTACAAT	2880
TTTTTAAGTT TCACAGTATT TTTCGAAGCA GGTAGAAGAG GAGGCGTCTG ATGTTAATTG	2940
GTCAAAAAAT TAAAGAGATT CGGATAGAAA AAGGAATTAG TCGTCCAGAT TTTTGTGGAG	3000
ATGAGCAAGA ACTGACAGTT CGTCACTGT CGCGAATTGA AAGTGGAGCT TCGCAACCGA	3060
GTTTGCCCAA GTTAGACTAT ATTGCTCGCC GGCTAGGAGT TCCAGTTTAT AGCCTTATGC	3120
CGGATTTTTT AGCTCTTCCT TCTGCTTATT TAGAATTGAA ATACCAGATT TTACGTGAAC	3180
CAATCTATGG TAAAGAAGAG GAGTACGATA AGAAGGAAGC GTGTTTGGAA GAGATTTATA	3240

921

AAACATACTTT TGATAATCTT CCTAAAGAAG AACAAATTAGC ATGTGAAGTA TTGCAGGCGT	3300
GTTTGGATAC TTCTAGAACT AGAAGGCCTG AATATGCAGA GTTAATACTT GAGGAACATA	3360
TGCCTCAGAT TATAGAAAA GAAGCTTATT CAATAAATGA TATGTTGTTG ATTCGTTTGT	3420
TTTTTTATCA AATGCTCATT AGAAAAGATC TTGCCAAATT TATAAATCAA ATCGAAAAGC	3480
TAATGCTCTT TCTTTTGGAA CAGAAGAAGG TAACTCAAAT AGAGAATTAC TTTATAATTA	3540
GAGATACTCT TATTTAGGA ATGTGTTGTC TTGAAAAGGT AGGAGTAACT GATTGTTTTA	3600
ATGATTATCT ATCGTGTTTA CAAGAAATTA TGGATAAAAC TCAAGATTAT CAAAAGAAAC	3660
CTCTTGATTT TATGTTTGTG TGAAGCAAG CATTAAGAGA AGAAGAGAT TTTAGTTTAG	3720
CTGAATCATT TTATCAGTCT TCTAAACAT TTGCGCAGCT AATTGGAGAT GAATTTCTAG	3780
TAAAGAAATT GACAGAGGAA TGGCAAGAGG ATGTCAAAAA ATATTTATAA ACATAGTGAA	3840
TCAGTGACAA AGATGTCCTT GTCCTCGTAT CAAAACAGTT CTAAAGTTCG TCTTTAGGGA	3900
TGTTTTTTTA GATATAAGCT AAAAATGACA CGAAATGGTT AGATTTTAAG GACATTGATG	3960
TCCG	3964

(2) INFORMATION FOR SEQ ID NO: 137:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12666 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 137:

TGAGACCGTT ATTTGTATTA GGGAAATGGG TATCTATTTT TAATGCTGTG GGGATTTTGA	60
TTGTTTCTAT TATTCAAACC AAAAGCTTGT CAGGTATGG AGCAGGATTG TTTAATCTAT	120
ATAACATTTC ATCTTATATA GGTGATTTAG TTAGTTTCAC TCGATTGATG GCATTAGGAT	180
TATCTGGAGC AAGTATAGCA TCAGCTTTCA ATTAAATTGT TGGTTTGTTC CCGGGAATAT	240
TGGCTAAACT GACAATTGGA TTAGTATTAT TCATTCTTTT ACATGCGATC AATATTTTTC	300
TATCGTTACT ATCAGGATAT GTTCATGGAG CACGTCTGAT ATTTGTTGAA TTTTTTGGTA	360
AGTTTTATGA GGTGAGGGA AAACCATTTT AACCTTTGAA GGCTTCTGAG AAATATATTA	420
AGGTTATTAC AAAGAATTAA TGGAGGATAT ATATAATGGA ACATTTAGCA ACTTATTTTT	480
CAACCTATGG AGGAGCTTTT TCGCTGCAT TGGGAATTGT ATTGGCGGTT GGATTAAGCG	540
GTATGGGGTC TGCTTATGGA GTTGGTAAGG CTGGGCAATC TGCCGAGCT TTAAGTAAAG	600

922

AACAGCCTGA AAAGTTTGCC TCAGCTTTGA TATTGCAATT ATTGCCCGGA ACACAAGGAT	660
TATATGGTTT TGTTATTGGA ATTTTAATTT GGTGCAATT AACTCCAGAA CTCCTTTAG	720
AAAAAGCGT TGCTTATTC TTTGTAGCTC TTCCAATTGC TATTGTAGGA TACTTTTCAG	780
CTAAGCATCA AGGAAATGTA GCAGTAGCGG GAATGCAAT CTGGCTAA AGACCAAAG	840
AATTCATGAA GGGAGCAATT TTAGCTGCCA TGGTAGAAAC CTATGCAATT CTGCTTTTG	900
TCGTATCATT CATTTTGACC CTCGTGTAT AAGAAATAA TTTGCAATTC AAAGGAGGTG	960
TCTAAATGAG CAATTAGAA AACTTACGAG AGTCTGTAT TGAACAAGCT CATGAAAAG	1020
GGCGTATGAA ATTATTGGAT TCCAAAAGA AGATTGATGA TGAATTGAA ATGCAAAAGT	1080
CGCTCATTAT AAAGAAAAA GAAGCTGAAC ATGAACGAAA GTTAAAGAA TTGCAACAGA	1140
AATATCAAAT AATTTTCAA CAATTAAAA ATAAGGAAC CCAATCAACG TTAGTATCAA	1200
AACAGAAAAT ATTAAAGAA CTTTTCAT CTGCTTTACT AGAAATGGA TCTTGGAGTG	1260
CAGATAAAGA AATGGAGTTC ATCTATCGAA TTCTGGAACG ATATTCACAA CAAGAGGTCA	1320
TAGTAACCTT TGGGGAACGG ACITTAGCTA AATTCATTT GGAACAATTA GAGAAATTGA	1380
AATTCCTCTT TCCAAATTAT TTATTAGTG AACAACCTAT CTCAAATGAA TCAGGCTTAC	1440
TTATTCAAT AGGTAAATT GATGATACT ATTTGTATA AACATTAATT GGATCGATTT	1500
CTAAGGAAGA AAGTTCAAGT ATCGCAAATC AAATTTTAT CAATTAAGGA TGAATTGGT	1560
TAATCCTTCT TAGAAATTTG GAGTATTCCA ATAAATTAG AAAGGTATTT TATGGATACT	1620
AATCTTTTTT CAAAAATAA TACGACGATT TCGGTAAAG AAAACGATTT TATTACAGAA	1680
GAAAAATTC AAAAAATTAT ACAATCCAAA GATACGAGA CATGGCATT TATCTTAGAA	1740
TCAACTCCCT ATCATTTATC GATTGACATC TTAGAAGATC CTAGTCAGAC AGAGATTTG	1800
CTAATGACAA AATTAGTCAA TGATTATAGA TGGGCCTATG CTGAAAGTCC GTCTGATATA	1860
ATTGTGACTT TATTTGCTTT ACGATATGTT TATCATAATA TCAAAGTTT ATTAAATCT	1920
AAGGCCGCAA TTAAGAAAGA TTTTCTAAA TTATTAATTC CAATAGGGAT TTTTGATATA	1980
GAAAGTTTAA AACATTTAGT TTCTTCCTTA CATTCAGATA CACTTCCTGA TTTTATGGTT	2040
CGTGAAGTAG AATCAATTTG GAATGAGTAT GAACTTTTA ATAATATTCG TGTAATTGAT	2100
GTCGGAGCTG ATCTAGCATA TTTTAAACAT CTGAACTTT TATCTAATGA GTTAGATGAG	2160
GTACTGTCTC AGGTATTGT CGAAATGATT GACTTTTATA ATATTATTAC TGTAACG	2220
GGTTTATCTC AAAATAAGAG TCATGGGAT ATTTTACAAT TACTTTCAGA TGAAGGAAGT	2280
ATTTCTGCTA AAGAATTTAT ATACATTGTA GAAATCAAG AAATATTTGT GTGGTTCAAT	2340
AAAAATAATC CAAGCTTAGA TTCAATCTTT TCAACTTATG AATTGAAGAT GCAGGACGCA	2400

923

ACAATTTTCAT CTTCTGAGTT AGAATTTTTA TGTGATTTAC TATTGTATAA AACTTTAGAT	2460
CAAGGAAGGT ACAATGTAGA GGGGCCGTTA GTTCTTGCTA GATATTTATT GGGATGTGAG	2520
TTTGAAGTAA AGAATCTCAG AATGATCATA TCAGCTCTTC AAAATACAAT TCCCTTTGAA	2580
TCAATAAAAG AAAGGATACG CCCACATTAT GGAAGCTAAT AAGTATAAAA TTGGCATAAT	2640
TGGTAGCCGT GATATTATTT TACCATTTAG CATGATTGGG TTTGATATAT TTCCTGCCTA	2700
CCAAGAACAA GAAGCTATAA ATACACTAAG AAAATTAGCT CAATCTGATT ATGGTGTGAT	2760
TTATATCACT GAAGACATTG CTTCAATGAT ATTAGATACA ATTCGCCATT ATGATTCCCA	2820
AGTGTGCCCT GCTATTATTT TATTACCGAC TCATAAACAA GGTTTAAATT TAGGATTAAA	2880
ACGTATAGAG GATAATGTAG AGAAAGCAGT AGGACACAAT ATTTTATAAT AATGTACAAA	2940
ATTGTCTGTA ATATTATTCT ATAATTTTGT GACTTAGTAA GGAGAATAAC TTTGACTCAA	3000
GGGAAGATTA TAAAGTATC GGGACCTCTA GTTATTGCAT CAGGTATGCA GGAGGCTAAT	3060
ATTCAAGATA TTTGCCGTGT AGGTAAGCTA GGGTTAATCG GTGAAATTAT TGAAATGAGA	3120
AGAGATCAGG CATCTATCCA AGTCTATGAA GAAACATCTG GTCTTGGTCC GGGAGAACCT	3180
GTGTGTTACAA CTGGAGAACC TCTCTCGGTT GAATTAGGGC CAGGATTGAT TTCTCAAATG	3240
TTTGATGGCA TACAACGCCC ATTAGATCGA TTTAAATTGG CTACTCATAA TGATTTTCTA	3300
GTTCGTGGGG TAGAAGTTCC AAGTTTGAT AGAGATATTA AGTGGCATTT TGATTCCACT	3360
ATAGCAATTG GTCAAAAAGT GAGTACGGGT GATATTCTTG GAACTGTCAA GGAAACCGAG	3420
GTAGTTAATC ATAAAATTAT GGTTCCTTAT GGAGTATCTG GAGAAGTCGT TTCTATTGCA	3480
TCTGGCGATT TTACAATTGA TGAAGTTGTA TATGAAATAA AAAAATTGGA CGGTAGTTTC	3540
TATAAAGGAA CGCTTATGCA AAAATGGCCT GTCCGCAAGG CGCGTCCTGT TTCTAAACGT	3600
TTAATTCAG AAGAACCATT AATCACAGGT CAACGAGTTA TTGATGCATT CTTTCCAGTA	3660
ACCAAAGGGG GAGCTGCAGC AGTTCCTGGA CCGTTTGGAG CAGGAAAGAC AGTTGTACAA	3720
CACCAAGTAG CTAAATTGTC CAATGTTGAT ATTGTTATTT ATGTCGGTTG TGGAGAACGT	3780
GGAAATGAAA TGACGGATGT ACTGAATGAG TTTCTTGAGT TGATTGACCC TAATACCGGA	3840
CAATCAATTA TGCAACGGAC AGTTCTGATT GCTAATACTT CAAATATGCC TGTGTCTGCT	3900
CGTGAGGCTT CAATTTATAC AGGAATTACC ATGGCTGAGT ATTTTCGTGA TATGGGCTAC	3960
TCTGTCGCCA TTATGGCTGA TTCAACTTCA CGTTGGGCAG AAGCGCTACG TGAAATGTCA	4020
GGACGTCTAG AAGAAATGCC TGGTGATGAG GGTATCCTG CTTATCTGGG AAGTCGTATC	4080
GCTGAATATT ATGAAAGAGC AGGACGTTCT CAGGTTCTAG GGCTTCCAGA ACGTGAAGGA	4140

924

ACGATTACTG CTATTGGAGC TGTATCGCCA CCTGGTGGAG ATATTTTCAGA ACCAGTTACT	4200
CAAAACACTT TACGGATTGT GAAAGTTTTT TGGGGGCTTG ATGCTCCGTT GGCACAGCGA	4260
CGTCATTTTC CTGCAATTAA CTGGCTTACA TCTTATTAC TATATAAAGA CAGTGTGGGC	4320
ACTTATATAG ATGGTAAAGA GAAGACAGAT TGAATAGTA AAATAACTCG TGCGATGAAC	4380
TACTTACAAC GGAATCTAG TTTAGAGGAA ATTGTTCTGC TTGTGGAAT TGATTCTCTG	4440
TCTGATAATG AACGACTAAC GATGGAAATT GCTAAACAAA TTCGAGAAGA TTATTTGCAA	4500
CAGAACGCTT TTGATTGCGT AGATACATTC ACTTCGTTTG CAAAACAAGA AGCAATGCTA	4560
AGTAATATTC TCACTTTTGC TGATCAGGCA AATCATGCTT TAGAGTTGGG TTCTTACTTT	4620
ACAGAGATTA TGAAGGTAC CGTGGCAGTT CGAGACCGTA TGGCGAGAAG TAAATATGTT	4680
TCAGAAGATA GATTAGATGA AATCAAAATT ATATCAAATG AGATTACACA TCAAATTCAT	4740
TTGATATTAG AAACAGGAGG TCTATAAATG AGTGTATAA AAGAATACAG AACTGCTAGT	4800
GAAGTTGTTG GGCCTCTTAT GATTGTTGAA CAAGTAAATA ATGTGTCTTA CAATGAGTTA	4860
GTTGAAATTC AACTTCATAA TGGAGAAATT CGTCGTGGAC AAGTTTTAGA GATCCACGAA	4920
GATAAGCAA TGGTTCAGCT TTTTGAAGGA TCTAGTGGAA TAAATTTAGA AAAGCTAAA	4980
ATTCGTTTTG CTGGTCATGC ATTAGAATTG GCTGTATCTG AGGATATGGT TGGTCGTATT	5040
TTTAATGGGA TGGGAAAACC AATGATGGT GGACCAGATT TAATCCAGA GAAATATTTA	5100
GATATTGATG GTCAAGCTAT TAATCCTGTA TCTAGAGATT ATCCAGATGA ATTTATTCAG	5160
ACAGGGATCT CCTCTATTGA TCATTTGAAT ACTCTTGAC GTGGTCAAAA ATTACCAGTA	5220
TTTTCAGGTT CGGGCTTACC TCATAATGAA TTAGCTGCTC AGATAGCAAG ACAAGCGACT	5280
GTTTTAAATT CTGATGAAAA TTTTGCAGTT GTATTTGCAG CAATGGGTAT TACTTTTGAA	5340
GAAGCTGAGT TTTTATGGA AGAACTCAGA AAAACAGGAG CGATCGATCG TTCGGTTTTA	5400
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ACTGCGGCAG AGTATCTAGC TTTTGAAAAA GATATGCACG TTCTAGTTAT CATGACGGAT	5520
ATGACTAACT ATTGTGAAGC GTTACGTGAA GTCTCGGCAG CTCGCCGTGA AGTTCCAGGG	5580
AGACGAGGCT ATCCGGGATA TTTATATACA AATTTATCAA CTCTATACGA AAGGGCTGGT	5640
CGCTTAGTTG GTAAAAAAGG TTCGGTGACA CAGATTCCTA TTTTAACAAT GCCAGAAGAT	5700
GACATAACAC ATCCAATTCC TGATTTAACT GGATACATTA CTGAAGGGCA AATTATTTTG	5760
TCGCATGAGT TGTATAATCA AGGTTATCGT CCACCAATCA ATGTTTTACC TTCTCTCTCT	5820
CGATTAAAG ATAAGGGATC TGGAGAAGGT AAAACTCGTG GAGATCATGC TCCAACTATG	5880
AATCAACTGT TTGCAGCCTA TGCCCAAGGG AAAAAGGTTG AAGAGTTAGC AGTAGTATTA	5940

925

GGAGAATCGG	CTTTATCTGA	TGTAGATAAA	TTGTATGTGA	GGTTTACAAA	CGGTTTGTAA	6000
GAAGAGTACA	TAAACCAAGG	ATTTTATAAA	AATCGAAATA	TAGAAGATAC	GTTGAATCTT	6060
GGGTGGGAAT	TACTATCAAT	TCTTCCTAGA	ACAGAGTTAA	AACGTATCAA	AGATGATTTG	6120
CTTGATAAAT	ACTTACCTTT	GGTAGAAGTT	TAATCCGGAA	ATGGAGTGAT	TATCTATGGT	6180
ACGTTTGAA	GTAAACCAA	CTCGTATGGA	ATTGAATAAC	TTAAAGGAAC	GTTTGACAAC	6240
AGCTGAACGT	GGACATAAGT	TATTAAAGGA	TAAAAGAGAT	GAATTGATGA	GGCGATTAT	6300
TTCTTTGATT	CGTGAGAATA	ATCAACTTCG	GAAAGAAGTG	GAAAGTTATC	TAATTGATAA	6360
TCTAAAATCC	TTTGCAAGTT	CTAATCATT	AAAGAATTCT	CAATGGTGG	AGGAATTATT	6420
TTCAATTCCA	TCGAAAGAAA	TTGAATTATT	TGTTGAGAAA	GAAAATATCA	TGAGTGTAAC	6480
AGTTCCCTAGA	ATGCATATGA	ATATTACTTC	TCAAAATGAG	AACAGTGAAT	ACAGCTATTT	6540
ATCTTCTAAT	AGTGAAATGG	ATGATGTATT	TGCTACAATG	AATAGTTTAA	TTTATAAATT	6600
ACTAAGACTG	GCAGAAGTTG	AAAAAACGTG	TCAGTTAATG	GCTGATGAAA	TAGAAAAAAC	6660
ACGTAGACGT	GTAATGGTT	TAGAATACTC	GATTATTCCA	AACTTGTCGG	AACTATTCA	6720
TTATATAGAA	TTGAAACTAG	AGGAGGCAGA	AAGAGCCAAT	TTAGTTCGTA	TTATGAAAGT	6780
GAAGTAGATC	CTTTATTTAG	ATTATTAATT	AGATGAACAA	ATATCAGCTT	GGATAAGGCT	6840
TTAAGCCTTT	CTAAGCTTTT	TTTATTGACA	GTATCAGGAT	ATCTTTTCA	AAATTTTGGT	6900
TTGTTAGATA	ATGAAAATGT	TTCTACTAAT	CTAGATTTAG	GATTAGTAAA	TCGTAAATGT	6960
AATTATATAG	AAAGTAAGCG	CGTCATAACA	AGGTATCTAT	CATTCATGGA	GCTCCTCCTG	7020
TATACTATTA	GTAAGTAAA	ACTATTGGAG	GATATTTTAA	TGCCACAACC	TATTGTTCCCT	7080
GTAGAGATTC	CACAATCTCG	TCGTTTGTAT	TCTAAAAAGA	GAAATGATAT	TCTGCTTAAA	7140
ATTCGTATTG	GCAAGCTTGA	AGTAAGTTTT	TTTCAATCTC	TCAATCTCGA	AATGGTAGAA	7200
CAGCTTTTGG	ATAAGGTGTT	GCTCTATGAC	AATTCATCTA	TCTAGCCTAG	GGGAGGTCTA	7260
TCTCGTGTGT	GGGAAAACGT	ATATGAGACA	AGGAATCGAT	TCACTGGCTT	ATCTGGTTAA	7320
AACCCACTTT	GAATTGGATC	CTTCTCCGG	TCAAGTCTTT	CTCTTTTGTG	GTGGACGTAA	7380
AGACCGCTTT	AAAGTCCTTT	ACTGGGATGG	TCAAGGATTT	TGGCTACTAT	ATAAACGCTT	7440
TGAGAACGGC	AGATTGATTT	GGCTAAGTAC	AGAAAAGGAT	GTCAAAGCTC	TCACACCAGA	7500
ACAAGTAGAC	TGGCTTATGA	AGGGCTTTTC	TATCACTCCA	AAAATATAGT	AGATTGAAAC	7560
TAGAATAGTA	CACCTCTGCT	TCTAAAACAT	TGTTAGAAAT	CGATTTTACT	GTCTGTATCG	7620
ATTTGTCCTG	TTCTTATTTT	ATTTTACTAT	AAATCCATCA	GAAAGTCGTG	ATTTCTATTG	7680

926

AAATGAGGAC	TTTCTTTT	TACTCATCTG	CTTTCAAAA	GCATTCTAGT	CCATCTCCGA	7740
TTAACGATGG	ACTTTATCAC	CTCCTTCTCC	AGTCCTTGTA	TAACATCTTG	GAGTTGATTC	7800
ATGACATCTT	CCAAAGTTTA	AAAGGCTTTA	TTCTTAAATC	CACGTTTACG	AATCTCTTTC	7860
CACACTTGTT	CAATGGGGTT	CATCTCTGGT	GTGTATGGAG	GAATAAATGC	AAAGCCAATA	7920
TTAGTCGGAA	TCTTTAAGGT	ACTTGATTTA	TGCCATATAG	CATTGTCCAT	AACGAGTAAA	7980
AGATAATCAT	CTGGATAAGC	TTGTGAAATC	TCCTATTCCCT	AAAGCCCCTT	TAGCGCATAA	8040
CTTTGGCTCA	GCTTCTATTA	TCGCTCACAC	CATCCATCAG	AAGTTTAATC	TGAAGGTACC	8100
CAATTATCGC	CAAGAAGAAG	ATTGGGCTAG	GATGGGTTTA	CCAATCACAC	GTAAGGAAAT	8160
CTCTAATTGG	CATATCAAGG	CGAGTCAATA	CTATTTGGAG	CCCCTTTATA	ACCTCTTGCG	8220
AGAGAGACTA	TTGACTCAGC	CCTTACTTCA	TGCGGATGAA	ACTTCTTATA	GGGTGCTAGA	8280
GAGTGATAGT	CAGCTGACTT	ACTATTGGAC	TTTTTTGTCA	GGTAAAGCAG	AGAAACAAGG	8340
GATTACGCTT	TACCACCATG	ATCAGTGTGC	AAGTGGTTCA	GTAGTACAAG	AATTCCTAGG	8400
AGATTATTCT	GGCTATGTGC	ATTGTGATAT	TTTGCGGCAG	TAACCTAGGA	CTTAGTCCT	8460
CTAGTTCTGC	CTATGCGATA	GCAGTCCAAG	GTTTAGGAGC	AAGCGCAGC	TAAGCTTGGT	8520
AAACTTCGAA	CCGCTCGTCT	GCTTATCGTC	AACTGGAAGA	AGCTGAACTT	GTTGGATGTT	8580
GGGCGCATGT	GAGAAGGAAG	TTTTTTGAAG	CGCCCCCCA	AGCAAGCGGA	TAAATCATCC	8640
TTAGGAGCTA	AAGGTTTAGC	TTATTGTGAT	CAGTTATTTT	CCTTGGAAG	AGACTGGGAG	8700
GCTTTGCCAG	CTGATGAACG	ACTACAGAAA	CGTCAAGAAC	ATCTCCAGCC	CTTAATGGAA	8760
GACTTCTTTG	CTTAGTGCCG	GCGTCAGTCA	GTTTTAGCAG	GTTCAAAAT	AGGAAGGGCA	8820
ATTGAATACA	GCCTCAAGTA	TGAAGAAACC	TTTAAGACCA	TTTTGAAAGA	CGGACATCTG	8880
GTCTTTTCCA	ATAATCTAGC	TGAACGCGCC	ATTAAATCAT	TGGTTATGGG	ACGGAGTAAA	8940
AGAGTCCAGT	GGACTCTTTT	AGCCTAAGCT	CAGTTTAAAA	AAGCGAGGGT	GGTTATTTTC	9000
TCAAAGTTTT	GAAGGAGCTA	AAGCAAGAGC	TATTATTATG	AGTTTGTGG	AAACAGCTAA	9060
ACGTCATCAA	TTAAATAGCG	AGAAATATCT	ATCCTATCTT	CTAGAATGTC	TTCCAAACGA	9120
GGAAACTCTC	GTAACAAAG	AGGTTTTAGA	GGCTTATTTA	CCATGGACTA	AAGTTGTACA	9180
AGAAAAGTGC	AAATAAGAAA	TCTCCAGATT	AGGAACTATC	CGTGAGTTCT	CCAGTCTGGA	9240
GATTTTTCAA	TAGACTTCCT	GCGAAACAAA	ATATGGTATA	ATAGTTCTAT	GAATGATGAA	9300
GCAAGTAAAC	AACTAACCGA	TGCACGATTT	AAGCGTCTTG	TTGGTGTTC	ACGCACGACT	9360
TTTGAAGAGA	TGTTAGCTGT	ATTAAAAACA	GCTTATCAAC	TTAAACACGC	AAAAGGTGGA	9420
CGAAAACCTA	AATTAAGTCT	AGAAGACCTT	CTTATGGCCA	CTCTTCAATA	TGTGCGAGAA	9480

TATCGAACTT ATGAACAAAT TGCGGCTGTT TTTGGTATTC ACGAAAGCAA CTTAATCCGT	9540
CGGAGCCAAT GGGTTGAAGT AACTCTTGTT CAAAGTGGTG TTACGATTTC AAGAACTCCT	9600
CTCAGTTCTG AGGACACGGT AATGATTGAT GCGACGGAAG TAAAAATCAA TCGCCCTAAA	9660
AAAAGAATTA GCGAATTATT CTGGTAAAAA GAAATTTTAC GCTATGAAGG CTCAAGCGAT	9720
TGTCACAAGT CAAGGGAGAA TTGTTTCTTT GGATATCACT GTGAACTATT GTCATGATAT	9780
GAAGTTGTTT AAAATGAGTC GCAGAAATAT CAGACAAGCT GGTAAAACTT TGGCTGACAG	9840
TGGTTATCAA GGGCTCATGA AGATATATCC TCAAGCACAA ACTTCACGTA AATCCAGCAA	9900
ACTCAAACCG CTAACAATTG AAGATAAAGT CTATAACCAT GCGCTATCTA AGGAGAGAAG	9960
CAAGGTTGAG AACATCTTTG CCAAGTAAA AACGTTTAAA ATGATTTCAA CAACCTATCG	10020
AAATCATCTA AACGCTTCGG ATTACGAATG AATTGATTG CTGGTATTAT CAATCATGAA	10080
CTAGGATTCT AGTTTTCGAG GAAGTCTATT ATCAAAAATA CCATCAAGAT TATATAAGAT	10140
TGATACAGGA AAAGTTTAT TTGATGGTGT AAATATTAAT CAAATAGATA AAAAAATATT	10200
AAGTCAAAT TTAGGAGTAG TTCCACAGGA TTCATTTTTA TTGAACCGAA GTATTCTTGA	10260
TAATATAACT TTAAGCAGC AAGTTACTTC ACAAAGATA GAGGAAGTTT GTAAAGCAGT	10320
TCAAATCTAT GATGAAATCA TGGCTATGCC GATGAAATTT AATACTATCA TCTCAGAGAT	10380
GGGGTCAAAT ATTTCAGGTG GGCAAAGCA ACGGATAGCA CTGGCACGTG CATTAATAAA	10440
TAATCCTAGT ATTGTAATTT TAGATGAAGC AACTAGTGCA TTAGACACTA TTAATGAGGA	10500
AAGAATAACA AAGTATATAC AAAGTCAGGG CTGTACTCAA ATAATTGTAG CTCATAGATT	10560
GTCAACGATT AAGGATGCGG ATGTTATTTT TGTAATGAAA GGTGTAAGA TTGTTGAGTC	10620
AGGAAATCAT AAGTACTTAA TGGATCTTGG TGGAGAGTAC TACAGCTTAT ATACAAAAG	10680
GAAATGAGGT GTAAAGAAAA TGAAGAAAGA AAATGAATAT GTAATTTTAA CAACAGCCTC	10740
ACTAGGGGTG ATGATTGGAA TAGTGTTCG AATTTTPTTA GATTTTCCAG TTGAATATGG	10800
TATTTCTTTA GGCTTGTTGA ATGGAATAGT ATTGGGTTTCG CTGATTGTTT ACAAAAACAA	10860
TAAGAATTAA GCATAATTTT TTGCTGTAAA CTAAGGAGTA GAGATGGCTA TAGTTGAAAT	10920
TATAAATCTA ACAAAAAGCT TTAAGATAT TGAAGTTATT CATAACACTT AAATAATAGA	10980
GCAACTACAG TAGTAGCTTA AAAACATGAT TAAATCGCTA TTCTTAGGAG TAGCGGTTTT	11040
TCITTTTGTT TAATACTCTT TGAAAATCTC TTCAAACCAAC GTCAGCTTTG CTTTACCGTA	11100
CTCAAGTACA GCCTGCGGCT CGCTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATAAAA	11160
AGGGTCAAGT AAGTATAGTA AATTGAAATA AGATATGAAC AAATCGATTA GAAAAGTCAA	11220

928

ATTAATTTCT AGAAATATGT TAGAAATTGG TTTGAATTCC GCAATCAATT TGTTCAGTTT	11280
TTATTTTCATT TCATTTTATT TAATTAGATT TTCCAATTTT TTAATTCAG CTAAAAATCC	11340
CCAATCGTAG TGATTGAGGA TTGAGTAAAT AAATCTTAAA CAATACCTTG TGCAATCATG	11400
GCATTTGCTA CATTTTCAAA GGCAGCAATG TTAGCTCCTG CAAGGTAGTC TTTATCAAGA	11460
CCGTATGTTT CTGAAGTCGT TTTAGCTGTG TTGAAGATGT TTGTCATGAT GTCTTTGAGA	11520
CGGCCATCAA CTTCTTCACG AGTCCATGAG AGGCGAAGAC TGTTTTGGCT CATTTCAAGA	11580
GCTGAAACGG CTACACCACC AGCGTTGGCA GCTTTTGCG GTCCGTAGAA GATACCATTT	11640
TCTTTGTAAA CTTTGATGGC ATCAAGGTCG CTCGGCATGT TGGCACCTTC AGATACACAG	11700
ATAACGCCTT GAGCAACCAA ACGTTTAGCT GCTTCACCGT TGATTTCGTT TTGAGTGGCA	11760
CATGGAAGAG CAATGTCATA GTTCCAGCG TAAGTCCATA CAGTACCTTC GTGGTAGGTT	11820
GCAGTTGCTT TTTAGCTGC ATACTCAGTC AAACGAGCAC GACGTTTTTC TTTAACATCA	11880
ACCAAAAGAT CGAAGTCGAT ACCATTTTCA TCGATGACAT AACCATTTGA GTCAGAAACA	11940
GAAATAACAG TTGCACCGAG TTCAGTTGCT TTTTGAAGAG CATATTGAGC AACGTTACCA	12000
GAACCTGAAA TAACGACTTT CTTACCAGCA AAGCTGTTAC CGTTAGCTTT GAGCATTTCT	12060
TCAGTATAGT AAACCAAACC GTAACCAGTT GCTTCTGGAC GAATCAAGCT ACCACCAAAT	12120
CCAAGAGGTT TACCAGTCAA GACACCAGCA TCAAATTGGT TAAGACGTTT GTATTGACCG	12180
TAAAGGTAAC CAATTTACG TCCACCAACA CCGATATCAC CAGCAGGTAC GTCAAGTGAT	12240
GGTCCGATGT GTTTTGCAA TTCAGTCATG AAGCTTTGGC AGAAGCGCAT CACTTCAGCA	12300
TCTGTTTAC CTTTAGGATC GAAGTCTGAT CCACCTTAC CTCCACCGAT AGGAAGTCCA	12360
GTCAAGACAT TTTTAAAGAT TTGTTCAAAT CCGAGGAATT TCAAGATCCC TTGGTTTACA	12420
GTTGGGTGGA AACGAAGTCC ACCTTTGTAT GGTCCAACAG CTGAGTTGAA TTGAACACGG	12480
TAACCACGGT TTAAGTGAAT TTTTCCATCA CGGTCAACCC AAGGAACACG GAAAGAAACC	12540
ACGCGCTCAG GCTCAGTAAT ACGTGCCAAG ATATTTTCTT CGATATACTC AGGGTGTTTT	12600
TCAAATACAG GTTCTAAAGT GTTGAAAAAT TCTTCAACAG CTTGGAGGAA TTCAGCCTCG	12660
TGCCCG	12666

(2) INFORMATION FOR SEQ ID NO: 138:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3083 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 138:

AGCAACTGTT GTGAACCAAT TCCGATAAAT TCCAAGAATT GGTTAATAGA GCCATTTTGA	60
CCAAAAATCC CGATAAAAGC ATAGGCTTTA AGGAGCAAAT TGATCCAGGT AGGAAGGATA	120
ATCAGCATGA GCCAGAGTTG ACGGTGTTTG AGACGGGTCA AAAAGAGGGC CGTCGGATAA	180
CTGATAAGCA GTGCCACAAA GGTCACAAATG CCTGCATAAA GCACTGAGTT GAAACTCATT	240
TTAAGATAGG TCAAGTTTGT TGACGCAAAG TAAGATTTGT AATTTTCTAA ACTGAACTGG	300
CCTTCGATGT TGAAAAAGGA TTGACCGAAA ATCAAGACCA AGGGTGCCAA TACAAAGAGC	360
GCAATCCAAA GCATGTAGGG TACTACAAAG AGTTTAGAGC TTGTTTCTT CATCTCTTTC	420
CTCCTCGATT GCATGATCA AACCTGCTTC TTGCTCTTCG ATTTCTACGT ACTCCTCAAT	480
ACGAGCATCG AACTCTTCTT CGGTTTCATT GAGACGCATG ATGTGGATGT CTTCTGGTTC	540
AAAGTCCAGA CCGATTTCTT CACCCACGAT AGCCTTACGG GTTGAGTGGA TCATCCATTC	600
ATTTCCAAGT TCGTCATAGG CGATAATTTT ATAATGAACT CCACGAAAA GCTGGGTATC	660
GACCTTAACT TGGAGCTTGC CTTCTTCAGG AAGGTAATG CGCAAGTCCT CTGGACGAAT	720
AACGACCTCA ACAGGTTTCT TTGGCTTCAT CCCACCATCA ACCGCTTCAA AGCGTTTGCC	780
GTAAATTCG ACCAAGTAGT CCTCAATCAT GGTACCTGGC AAGATGTTTG ACTCCCCGAT	840
AAAGGTGGCA ACAAGTGGT TGATGGGCTC ATCGTAGATG TCCACAGGGG TTCCAGACTG	900
GACAATCTCG CCATCATTCA TAACGAAAAT CCAGTCACTC ATGGCAAGAG CTTCTTCCTG	960
ATCGTGAGTG ACAAAGACAA AGGTAATGCC CAATCGTTGT TGTAATTCAC GCAATTCGTA	1020
CTGCATGTCT GTTCTCAATT TCAAGTCCAG CGCTGATAAA GGCTCGTCCA ACAAGACCAC	1080
ACGGGGTTGG TTGATGATAG CACGGGCGAT GGCCACACGC TGACGTTGTC CTCCAGAAAG	1140
TTTGCGGATG GAACGTTTTT CATAACCTTC CAACTGAACC ATCTTGAGAA CTTCCGCTAC	1200
ACGCTGCTCG ATTTCTTTCT TATCAATTTT ACGCAAGCGA AGTGGAAGG CAACATTTTC	1260
AAACACATTC ATATGTGGGA ACAAGGCATA GGATTGGAAG ACGGTATGTA CGTCGCGCTT	1320
GTGTTGTTGA ATATCATTGA TACGAACACC GTCTAGCATG ATATCTCCTG TCGTCGCATC	1380
CAGTAAACCT GCAATAATGT TTAGGATAGT TGATTTCCCC GAACCAGATG CACCTAGAAG	1440
GGTGTAGAAT TTCCCTTCTT CCAACTCAAA GTTGATGTCT TTGAGAACCT TGGTGTGCT	1500
GTCTTCAAAA ACTTTAGAGA CGTTTTTGAA TTCGATAATT GGCTTTTCA ATTGGCATAA	1560
ATTCCTTCTT TTTCATAGAT TAACCGATCG GGGCTCTGTC AGGTCCCCAC TACCTCTTGC	1620
AGGGAGTAAA ACCACCTGCA TACATCTTCG CTACCGATAG GCTTTCACCC AAGATCCGGA	1680

930

CTTCTCTTTC AAGCGTAATA CCTGAGTGT CCTTGACTTT TTCGATAACC GATTGGATCA	1740
AGTCCTCGTA GTCTTTGGCC GTTCCATCTG CGACATTGAT CATAAATCCT GCATGCTTTT	1800
CTGACACTTC TACGCCACCG ATACGATAGC CTTTCAAGCC AGCTTCTGAA ATTAAGTGAC	1860
CTGCAAAATG CCCGACTGGA CGCTTAAAGA CCGAGCCACA AGATGGGTAT TCCAAAGGTT	1920
GCTTGAGTTC ACGTAGGTGC GTCAAGCGGT CCATTTCCTG CTTGATAACC TGATGGGTTC	1980
CTGGAGCTAG GGCAAATTTA ACTGACAAGA CAACTGCACC AGACTCCTGA ATAGCTGAAT	2040
GACGGTAACC AAAAGCCAAG TCTTTAGCAG ACAGGGTTTC GATTTCTCCA TCCTTGGTCA	2100
AGACCTTACA AGACTGCAAG ATGTGAGCAA TCTCGCCACC ATAGGCACCC GCATTCATAA	2160
AGACAGCACC GCCAACGCTT CCTGGAATAC CACAAGCAAA CTCAAAGCCA GTTAAACTAT	2220
GACGGAGGGC AATGCGAGTT GTTTCAATCA AGTTAGCCCC AGCTTCTGCT TCAATGGTAT	2280
AGCCATCAAC AGAAACGTTA TTGAGCTTGT CACACAAGAT GACAAATCCA CGAATCCAC	2340
CATCACAAC GATGATATTG CTGCAATTGC CAAGAACCAT CCAAGGGATA TTTTCTTGGT	2400
TGGCAAATTT CACAACGCGA GCCAACTCAA AACGATTTTCG TGGAAAGACC AAATAATCAG	2460
CCTCTCCACC TACTTTTGTA TAACTATAGC TATGCAAGGG TTCCTTAAAA CGGATATCAA	2520
TTCTTCTTAA GATTTCAAGC ATTTTCTCTC TTACAGACAT GTCACCTTTC CTTTACAAA	2580
ATTCAATCCA TTATACCATT TTTAGAGACA TTTGACGACC ATAAAAATAC CTTGTTTGGA	2640
TTTTGCATAA GAAAAAGAGG TTCCCCCTT TTTATGATT TTTACAAAAG ATTTCTTGG	2700
TTCCATAGGC GACCAGAACG AGCTCCAGTG CTAGAATCAC TTCAACCAAG ACTGGATTG	2760
TCAACCAGCC TACTTGGAAG AGAGATGGTG CCAGATCAAA GAAGGCATGC AAGCCATAGG	2820
CTGCTAGGAG ATAAATCCAT TTCTTCTGGC GAACAGCTTG GTAAACCCAA ACTGTCAAAA	2880
GTAATTGGAA ACCAAGCGCC AAGATTGCT CAAAACCAAG CAAATAAATC TGCCAGACCG	2940
AAAGTGACTG AATGGTTTTT AACATATTTT CAGACAGTAA TTGCAFAAC TGTGGATTCT	3000
GAGTTTGAAC TGCCGAAAGA ACAATGTAAA GATTGAGTAA ACTAGTAAGG CCTAGAAAAA	3060
TCAACTCCAA GCCACCATGC CCC	3083

(2) INFORMATION FOR SEQ ID NO: 139:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 15363 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 139:

931

CCGGAGGATA TTGACCACCA CCAAAAGCAG GGGGAAAATC GAAATCAACC AATAGTAGGC	60
TACTGCGACA CTGGTCAACT CACTATCTGA TGCTTGATAA TAATGCAAAA AAGCTTTTAA	120
TAAAGGTTTG TCTATCAGCT CTTTCCACCA CTTTTTCATG TCATACTCCT TCACTTATAA	180
TCTTATACTC AATGAAAATC AAAGAGCAAA CTAGAAAGCT AGCCGCAAGC TGCTCAAAAC	240
ACTGTTTTGA GGTGTAGAT AAGACTGACG AAGTCGATCA CATACATACG GTAAGGCGAC	300
GCTGACGTGG TTTGAAGAGA TTTTCGAAGA GTATTAACCTA ATTTCTTCTT ACCAATTCCA	360
CCATATCATA CGGTAGGGTA TTGGCAGCTT CCTTCAAGGA ATAGTTCTCT AAGTTATTTA	420
CATTTTGTCTG TAATTTCTTG GCATACCTAG TCGTAATCAA TCGTTTTTCT TCGTATTCGA	480
AAATCAACTT GCCTCCAGA TAATAGCCTC TCAGCATTTT ATCGATATTG TTGGGTTTGA	540
CACGATTGAT AACCCGTTTC ACAAAGGCAC CACTGCTGAT AATAGCTGTT TCTCGAAGAC	600
GAGACTCCTG CATAAACTA ATCAAAGAGC GTCTGTAGAC TCCCTTCAGG TTTTCCAAAC	660
TTTCAATAAT CATCTCTGTA TTGGCAAGAT AGAGCTCTGC AATTGTGTC TAATCAAGAG	720
CACGGAGACG GCTTTGCTCC TTGTTCTTCC AGCTACGGAA GGTCTTTCCG AGAGTAAAAA	780
CTTCATGAAG GAGAAAACGT AAAATCCTCA AGGAAACAAG AAAATAATAG GTCAGTCTTG	840
AGGCAAGTTT ACGATTGATT CCTTGTCTA TATTTTTCAG ATAACGTGG TAAACTCGGT	900
AAGCACGATT GCTAATGTTT CCCTCTTCAT AGGCCTGTTT CAAACCATCA CTTTCAATAC	960
TAAGAATCAA GAGTTTCAA GCAGCCAGT CTCTTGATC ATCCTGGTTT TCTTGGCTTA	1020
AAATGAGATT TTCAATACGT CCATGATAAT TGTCATAGC CGCATAGAGG GGAAGTTTAT	1080
TTCTGGTGTC TTCCAACCTT TTTTCCAACT CTAGCGTTAC TTCATTCAA ATGGCGATAT	1140
GCATAAGATA ATCCTTGCTT TCTTCCTCTT CATCAGAAAG ATGAGGCAAG ACCAAGAGAC	1200
CTGTAAAAA GCTAACCAAG GTCACACCTG CAACAAGGAA AAGCAAAAGA GGATACTCCT	1260
GTTCTAGATT ACTTGGTATC AAGAGAATCG TAGCAATCGA CACCGTTCCC TTAACACCTG	1320
AAAAGGTCAA GAGAAACATG TCCTTCATAT ACTTATTTAG CTTTTTCTTG AGGCGTCGGG	1380
TTCTATAGGC ATAATAGCCA TAGATCATAA TAAACGAAT GACAAAAAGG ACAAAGGTAA	1440
GGGCGATAAG AGATAGCAAT AAAAGTAGAG GATTATAGAT TGGATTGGTC AAGATAGGTT	1500
CTGCTATCAT TTCCAACCTC ATCCCTAAAA TCACAAAGAC AGAACCGTTG AGCATAAAGG	1560
TCACTGTATG CCAGACCGTC TCGGTCACCG TATCCACTTG GGCTTCGAGG AGCGTGATTT	1620
TCTTGAAGCG ACTTGCTTTT AAAATTCCAG CAACTACGAC GGCAATAATA CTGAAACAT	1680
GAACTTCTTC TGCCAGAAAG AAGGTCATA GAGGCAAACT CAATTCTAAT AAAAGTTCAC	1740

932

TGGCAATATC CGTTGCGCGC AACTTAGCA AGAAGGTATG GAGGAAGCGG TTGGTCATGG	1800
CTGTTAAAAA TCCAATTAAA AAACCGCCTA GGATTGAAAA GATGAGCGAA CTGCTAGCTT	1860
GCCCCAGAGA AAAAGCTCCA GTTGTCCAAG CTGTCAAAGC TACCTGAAAA GCCACCAAAC	1920
CAGAAGCATC ATTCAAGAGT CCTTCGCCCT TAAGAATATT GGACACGCGC TTAGGAAAGC	1980
TAAAACGCTC CGAAAGAGAG GCAAAGGCCA CCAAGTCCGT AGGACCAAGG GCTGCCCCAA	2040
CAGCCAAGCA AGCTGCCAAG GGAAGGCTGA ACCAAAGAAG ATGGGCCAAG CCACCCAAAC	2100
TCAGGGTCGA GATAAAATC ACTGGAAATA TGAGATAAAC AATGATTGCG CAGTGTTTTA	2160
AAATAGCCGT AACATCTGCT TCTTCAGCCT CTCGAAAAAG CAAGGGTCCG ATAACCAGTG	2220
CCAAAAACAA CTCCTTATTA AGGTGAAAGT CAGTATTGGG TAAAAAGAGA CCAATCACAA	2280
TTCCCAAAG AATTTCACCA AAAGGGAGAG GCAAAAAGG CAGGAGCTTA TTGGTTGTAC	2340
TTGAGACAAT CAAAACCAAGT AAAAATAGGA TGAGGTAAAT CAGTAATTCC ACGCACGTCC	2400
TCCTTAATCT TTTTACAAC AGGATTCAAA TATCTCCTTC TGCTCTTTGA TTTTGTGGTC	2460
AATCTTGGA CAGTCTTTGT GCTCAATTTT TCTCTGGCAC CGTTCCATTT CAAGAGCAAC	2520
TAATTTTTTC TTGATTTTAA GCATTTTTTT GCTCATATGC GCTTGGTCTA GCACGCCCAT	2580
CGCTCGTTTC TGGTGGGTTG ATTCAACAAA ATTCTGGCGC ATGGCATCCA GCTTTTCGTG	2640
TAAGTATGT TTATCCATGT CTGTATCTCT CTAATTTTTC AATCATCACT AAAACGGCG	2700
GGTTGTGAC TTGGTTTAAA GTTCGGTAAA TGGCAGCTGT GTACTCTTGT TGTTTCAACT	2760
GGATCACAAA ATCCAAGACA GCATCTCTCT CGAGATCGCC TCCTTCATGA CCATAGTAAA	2820
TCATAATAGC AATTCGTCCA CCTTTGACAA GTAAGCCACA TAGCTTTTCT AATGCCTCAA	2880
TCGTGTCTG CGGTCGGGTG ATGACAGACT TATCAGCTGC CGGCAAATAG CCCAGATTAA	2940
AAATCCCTGC CTTAGCTTTT ATCACAAACT GGTCCAGTGT CTCATGGCCT TGCAAGATTA	3000
ACTGGGCATT TGTCAGTCA GCCTGATGCA AACGCTCTTG GGTCTTTTCC AAGGCTTGCT	3060
TCTGAATATC AAAGGCATAG ACTTGCTTGG CTAGCTTGGC TAAAAAAGC GTGTCATGAC	3120
CATTTCCCAT AGTCGCATCC ACTACGACAT CCTCTTTTGT CACGACCTCA GCCAAAAAT	3180
CATGTGCCAT CTCAAGTGGT CTTTTCATTT TCAAACCTCT GTTTTACAGC CTTGCATCCT	3240
TGAACACTTC CACGACGTCG CATCTCCATC TCAATGCTGT TGAGGACTTC CCATTTATTG	3300
AGGCTCCACA TAGGACCAAG CAGCATATCC CTAGGCGCAT CTCCTGTAAT TCGATGGATG	3360
ACGATATGTT TGGGAATAAT TTCCAGTTGG TCACAGATGA CCCTGACATA TTCGTCCTGA	3420
CTCATCAATT GTAAACGCCC CTCATGGTAA TCTCGTTGCA TACGAGTATT TGTATAAGA	3480
TGGAGCAAAT GCAGTTTAAT CCCTTGAATA TCGTTATCCG TGACACAACG GCGGACATTT	3540

933

TCAACCATCA TCTCATGGGT TTCACCAGGC AAACCATTGA TCAAATGGGA AACAATCTCA	3600
ATTTTGGAT ACTTCTCAA ACGCTTGACC GTTCCACCT ACAATTCATA AGAATGCGCA	3660
CGGTTAATCA GGTCAGAGGT TGCTTCATAA GTAGTTTGCA AGCCCAATTC AACCGTCACA	3720
TGCATGCACT CCGATAACTC AGCCAAATAT TCGATGGTTT CGTCTGGTAA ACAGTCTGGG	3780
CGCGTTCCAA TATTGATTCC TACCACACCT GGCTCATTGA TAGCCTGTTC ATAACGCTCT	3840
CGAATAACTT CCACCTTTTC ATGGGTGTTG GTAAAATTTT GAAAATAAAC CAGATACTTC	3900
CGAACATCCG GCCACTTGCG GTGCATAAAG TCAATTTCCCT TATAAAATTG CTCACGGATA	3960
GGCGCATCCG GTGCCACAAT GGCATCTCCA GAACCAGAAA CCGTACAAAA AGTACAGCCC	4020
CCATGAGCCA CAGTCCCATC ACGATTGGGA CAATCAAATC CCGCATCAAT AGGGACTTTA	4080
AAAGTCTTTT CTCCAAAGAG TTTTCGATAA TAATCATTC AAGTATTATA AGATTTCATG	4140
ACTTTCATTA TAACAAAAAT CACCCACAAT CTCAAAAGCC TGACTTTCCT ATAAATTCCT	4200
CTGTTCTCG TTTCCATTAG CCTTTTMTTA TGATACAATA TGGGTATGAT TTTAATGAAA	4260
TTAGCATCTA TTTTATTATT GATACTGACC TTAGTCGTCT GCATTATCCT AACCAAACCT	4320
TTTAGATTAA AAAAAGTAGG ACGAAACTTT GCGGATTGG CTTTCCAGT CTTGGTATTT	4380
GAGTATTACT TGATTACAGC TAAACCTTT ACCCATAATT TCCTCCCTAG ACTGGGGCTA	4440
GCCCTCTCGA TCCTAGCCAT TATTCTCGTC TTTTCTTCC TTTTGAAAA ACGCAGCTTT	4500
TACTACCCTA AATTTATCAA ATTCTTCTGG CGTGCAGGAT TCTTATTAA CTTATCATG	4560
TATATAGAAA TGATTGTTGA ATGTTCTTA ATGAAATAGT CGAATCCCTA AGCATTTTCT	4620
AGGGATTTTT GCTTCTCTA CAAAATAGTA TAGACAATA CACTATACAA TTTTATACAA	4680
AGAAAAGAGT CTGGGACAAT AGTCTCTTAT ATCCAAAAAG GCAACGGATT TGCCGTTGCT	4740
TTTTTGATG GTTACGATAG TCTTGGTAAA ATAGAATTGC CCAATAAACC ATTTAGAAAG	4800
GCTATCCCAT GCATATTCAC TATAACACAA ATCAAACAAC TTTACCACTA GAAATCAGTT	4860
CCTTCTTACC ACAAGATCAT CTCGTTTTTA CTATTGAAAA AGTGGTGAAT ACCTTGAGG	4920
AACGTCACTT CTACACCTCC TATCATGCCT TTGATCGCCC GTCTTATCAC CCTAAAATGC	4980
TTGTATCTAC TCTTCTATTT GCCTATTCAC AAGGGATTTT CTCTGGTCGA AAAATTGAAA	5040
AATGGAAGAG TTAGTGACCT TAGATTGTTT GTTTATTGAC AGAACTAAGA TTGAAGCCAA	5100
TGCCAACAAG TATAGTTTGG TGTGGAAGAA AACGACAGAG AAATTCCTCCG CCAAACCTCA	5160
AGAACAGATA CAGGTCTATT TTCAAGAAGA AATCACTCCC CTTCTGATTA AATATGCCAT	5220
GTTTGATAAG AAACAAAAGA GAGGGTATAA AGAGTCAGCT AAAAAGTTAG CGAATTGGCA	5280

934

CTATAATGAC AAGGAGGATA GCTACACACA TCCTGATGGC TGGTATTATC GTTTTCACCA	5340
TACCAAATAT CAGAAAACAC AGACAGACTT TCAACAAGAA ATCAAGGTTT ACTACGCCGA	5400
CGAACCTGAA TCAGCCCCCTC AAAAGGGACT GTATATGAAC GAACGCTATC AAAACTTGAA	5460
AGCTAAAGAA TGTCAGGCGC TTTTATCTCC CCAAGGTAGA CAGATTTTCG CTCACGCAA	5520
GATTGATGTG GAACCTGTCT TTGGGCAGAT AAAGGCTTCT TTGGGTTACA AGAGATGTAA	5580
TCTGAGAGGG AAGCGTCAAG TGAGAATTGA CATGGGATTG GTACTTATGG CCAATAACCT	5640
CCTAAAATAT AGTAAAATGA AATAAGAACA GGACAAATCG ATAAGGACAA TCAAATCGAT	5700
TTCTAACAAT GTTTTAGAAG TAAAAGTGTA CTATTCTAGT TTCAATCTAC TATACAATAA	5760
GAGAATGACT CAAAATTAAA AAGCTAGAGT TCCACAATTG GAAATATCTA GCTTTTTTGT	5820
GGTTGAGAAC TATTTTGTCT CAGGCTCTTT ATCTTCTATT TAGGACAAGA GTTTTCTTT	5880
GGTCTTTAAT GATAAGAAG GTATCAAAAT TTCTAGTCTT CTTTTTTACC TTTAGTAACT	5940
ACTAATCCTG CACTCAAACC TAGAAGAGTT AAACCTGCTG CTAATGCTGC TTGGCTTGCC	6000
GCACTACCTG TACTTGGTAA CTGGGCTTTA TTAGTTTAC TAGCTTCACT TGAATCAATT	6060
GGTTTTGTAT CTGCTTTTTC TGACACTTGT GGTTTTTTAG CTTCTTGAGC TACTGGTTTG	6120
GTTCCAACCA AGACGATGCG GTCTGTCGGA ACTTCTACCA CTTACGGAG TTTTCTTCC	6180
TTACTTCCAT CAGGATTAAT CGCTGTAAAG ATACGTTCTT TTCCAACTTT TCCTTCTGT	6240
TCTACACGAG TTTACCTAG ATACAGTGT GAATCTTTT TCTCAACTGT CTTGTATGCC	6300
AAATCTTTTT CAACAAATTC GATTTTTGGA AGATCTTCTT GTACAGCAGC AACTGCTTTC	6360
TCAGAAACTG GTTTTTCTCT AGTCAAGTGG ATACGGTATT CCTTGACTTG TTTTCCACTT	6420
TCTGAAACGA GCGGAACAAG TACTGGAAG CTATCTTCTC CACTATCTAC CACAGTTGAA	6480
GCTACTTGAT TGTTTTCTTC AACTGAGACT TTTGGCCGTT GACCTTTATA GGTAATTTGA	6540
TAGTCTTGAC GATTTTCAGC GAAATCAGCA AGTTCTTTTC CATCTACAAG AATCTTTGAT	6600
TGAGTGCTTT CTTGAGGCAA TTCACTTGGT GCAAGGAAGG TCATCTCAAT CATCGCAACA	6660
CCGCTCTTAT CTGCTTTACG CTCCATACGC CATCTCATAG CTTTGGCTTT GATAGCTTTA	6720
AATGTTACGT TGATTTTCATC ACCAGCTGCA ATGTCTTTAT CCGCACGATA AGGAACAGCT	6780
TCCCAATTTT CTGGATTGTT GAATGGATGG TCTGCGTCGT AGGCTTGCTA GTTTGAATAG	6840
TAGGTTGGCA CTTCAAACCTC TGGACCGACA TAGCGTTCTA AAACGAGTTT AGATGGTGCA	6900
TCCGTACCAC TATCTGCAAA GAACTGAACT TTTCTTGTG TAACAGTCCG TTCTACAATC	6960
TTACCATTTT CACGGAAAA CACCCCGCT GATACTTCTG GATTAGAAGA TGGTGTGGT	7020
GACCAGTTTG TCCAACGACG ATTTTCTGAA TGATCTCCGT CATTGAGATA GTCAACGCGG	7080

935

TCATGAGAGT TTTTGTCAAT ATCATTGGTT GCTGAAGCAA AGGCCTGGTT ACTGTTTCA	7140
TCATAGTTAG GGTATCTGA AAGAGTCTCA CCAAGTTTGT CTGTCACTCG TACAGTGATC	7200
TCAGCAACAA GGTACTACC AAGGACACGG CCTCGAACAG TAAATTGACC TGCTTTTGTC	7260
AGATTTCCG CTGGAAC TTC CATTCA ACTGTCAGGT CTTTGTTC GTAGCCGTCT	7320
TTACCTGTGA AGTAACTGG AACCTTAGTC GGCAATTCAA GTGCTTGACC TACTGTAGC	7380
AAGCGAGCTT GTTAAACGC AGCAACTGGT TTATGAGAAA GTAAGCTCTT ATCCTTAGTG	7440
AAGTGCAGAC GGTATCTCC TAAGATGTCG CCATTTTCAG CTTTCGCGAT GACACGAAC	7500
GGCTCACCTT CACGAACGCT TGGAACGACG GTAGCGAGAC CATTGTTGCT AACACTTGCT	7560
GTGACTGCCG GAACTTTTCC ATCTACAGAC TCAAGTAGT AGTCTGTCAA ATCAGGGTTG	7620
AAGTTTGCTA AGTCTTTGCC GTCAACTTGG ATTCTTGTTC GTCCTTGCTT GGCTGCCGCA	7680
ACTTGTTCG CAAAGATTG TACCTCTGTG ATAGACGTTT CACGCTTGT ATCTGCTTTA	7740
ACCATGCGAA TACGAACAGC ATAGGTTTCA ACTTTATCAA AGCTAAAGTG GTTCATTTCT	7800
CCAGCCTTGA GTTAGACAGG GGCTTTTGA TTAGTAACTG GTTCCAGTT GGCAGAATCA	7860
TTAAAGACAT GGTCTCAT TACCAACAAA CTAGGTTTT TAGGAGCTGT TGGGACAGTC	7920
TTACCAACAT AATACTCAAT CACATAAGAC TTCGGTACAC CAACTCCATG GTCTTCATGG	7980
AATCCGACAC TTAGATTATC AACGGAGCGT TTGCTCAAGA TACCTGAATC TCCAAACAGA	8040
ACACCGACTG AAGCTTCTGG ATTAGTACGA TTCCAGTTTG TCCAACGATT GGCTGGTTGG	8100
TTATTGTAGG AAATGAGCTT GTCATTAACT TTTGAACTG GGTGCTTGG ATTTGAGTCT	8160
GAAGCAAAG CAAGTGGCAA TTCTGAACCG GTCCATTGGT CAGAAATGTT TGCACCTTGC	8220
TCAGTTTGAG CAGATACGCG AACATGAAGT TTAGTTGTTA ATTGCGTACC TTCTAAGCGA	8280
CCATTAACTG TAAAGACACC TTCCTTAGCG TATTGCTCTG GACGAATCGC ATCCCATGCA	8340
ACCTTAGCTG ATGAAACGTG ACCATTGAA TCATATGTCC GAACACTTTC TGGTAATTGT	8400
GGTGCTTCTG CGATTGGAGT TGTCACACTG ACTTCTTCAA CTGAAACGAT ACCTTCTACA	8460
GAGACTTTTG CACGCGCTTC AAGGTCAATT CCTTCAACTT TACCTAGTAC TTCAAATGTT	8520
TGATAGGAGT CTAGTTTTTC TTTCGGAATA GCTTGCCAAG TGACTTTATG AGTTTATAGG	8580
AAACCTTTGT CATACTCAAC TGTTACTGTT GCTGGAAGAC TTGGTTCTCT ATGCAAATCT	8640
GTCATACAT TTACAGGACG GATGGATTGC GCAATCTTCT TCTCAGTATT GGCTTGGATA	8700
GTGAGTTCAA CTTGGTCTTT AGCTCCCTCA TATTGAGCGT TCAGAGTGAC TGCTCCTGGC	8760
TTATGCAACT CAAGCATTC TTTACGAATT GCGACTTCCC CTTCACTACT TGTTAGAGAAG	8820

936

GTTACTTTAT CAGCTGGTAA TACAGCTTGC GTTCCATCTT GATAGTGAGC TCGAACCGAC	8880
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GCAATTTTTG GCGCTTCTTC AAGGAATTGA ATTGCATAGG TTTGAAGAGG GCCACCATCT	9000
TTAGGCTGAA TAAAGATGCT CGCACGCATG CCGTTTGCTG CGCTTGCTTG AAGAACTGTA	9060
ACAGCTGCAT TTTTAGCACT TGCTGTGACT TCTGGCAACT TAGCTCCATA AGCAAGAGTG	9120
CGGTATTGCA TTGGTTTTTG ACTAGTAAGA CCTGTTACTG CCTCACCACC AACC GTTACA	9180
GTTGGTACTG CAGGTGCCGC AGGATTGCCT TCTTCTACCA CAAGGGTGC ATGAATTGGT	9240
TGACCTTCTA AATAACCGT CGCTTGAATA CGAGAACCTG GAATTGCTAA CTTAGCTTTA	9300
TCTTCTTCGG CAATCTCCCA CTTGTCCACT TCATACTCTT CAACACTTCC ATCAATCAAA	9360
ACATAGGAAA CAGATTTGTC TACAGAAATC AAGTCAGTAT TTGGAGCAAT ACGTTTCACA	9420
ACTGGTAGCT CTGATTTAAG AGCAATCACT TCTACACGAG CTTCTACTTC TCGTCCGTCA	9480
GCCATACCTT TCACCGTTAC AATACCAGGC TTGCTCACAT CTAAGAAGA CCAGGTTACA	9540
GGACGTTCTG CACGGCTACC ATCACTGTAT ACAAACGGAA CAGTGGTAGG CATTTCAGGT	9600
GCCTCTCAA TAATGGTCTG TACTTTTGGC ACTTCTGTCC CAAAACAGT CTTCTCTTGT	9660
CCTTCTTTCT TACCAGTAAA GACAGTGACT TGGTTCGATT TCAAGAGATC AGAGTGGGCA	9720
GTCAGGGTGA ATTTCCCTGC TGTTCAGTT GATTTGACAA TGGCAACACC TTTACCATTA	9780
AATGCTTTAC GAATCCAAGA ACCATCTGCT TCGGCCTTAT AGCGTTCACG GCTGGCTTGT	9840
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TCCAAGGTAC CTGGTTGATA GGCAACTTTC CATTCAAGAT AAAGTTCATT AGCATTTGCA	10140
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GATTTTCCAT TCAAGAACAA TTCTACACTA GAAGCATTCG AATAAGCACG AACTGGAATC	10260
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AGAAGGTGTA CCATCGGTTT CTTCTTAACA GAAACCCATT GGCTTTGGTA GAGATAGAAG	10380
TCATGTTTTG GAATGCCGGC TGTATCTACG ATACCAAAGT AAGAGCTCTT AACAGGAGTT	10440
TGATTTTGGT TGTGCCATGG TGTAAGTTCA CCAATATAGT CCGTACCTGT CCAGATAAAC	10500
TGTCCAGCAT AGCCAGCGTT GTCACGGTCA AAAGTCCATG AAGCGGTTGC TGTTTTCCCC	10560
CAACCCACAC GATCATTTCC ATAATCTGAC TGTTTATAAT TACGCTCAGG TCCATTGCTA	10620

937

TGTTTCAATT CACGTTTCAGG GCGATAGTAA CTTCCACGTG TACGGGTAGC TGAAGATGTT	10680
TCTGATCCAT AAATCAACCA TTTTGGATGC TTAGCTCTAA GGGCTTTGTA ATTATCTTCA	10740
GAATAGTTAA ATCCAACAGC ATCGAGTTCA TCAGCAATTT TCTCATGCCC TCCGCTACCA	10800
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ATAACCTTAA CCAAACGTTT AACAGTTGCT AAAGAGTGGG CATCACCATT AGCTTCACCT	10920
ATTTTCATTAC CAATTGACCA CATGAAGATA GCAGGGTTGT TTTTGCCTCT TCGACCATG	10980
GTACGTAGGT CAAAATCAGA CCATTTTTC A CTTTTCGAG CTTCTGGGTG AGTGGCATCT	11040
TTTTCAAAGA AACGTCCATA GTCATAAGGT TTCTTGCCAC CATACCACGT ATCAAAGGCC	11100
TCTTCTGAA CGAGTAAACC TAGTTCTGCT GCGATTGCA AGGTTTGCTC ACTAGCAGGG	11160
TTGTGGGTTG TACGGATGGA GTTAACTCCC ATCTCCTTCA TTTGTTTGAG ACGGCGATAT	11220
TCTGCTTAT AGTTTCTTC TGCTCCAAGC GCCCCATGGT CGTGGTGCAA GGATACTCCA	11280
TGGAATTTAA TACGTTTACC ATTCAAAGAG AAACCTTCAT TTGGAGTCCA GTGATAGTAA	11340
CGGTAACCAA ACAAACTCCT CTTAGCATCA ACCAATTGAC CGTCACGGTA AACACGCGTA	11400
ATCAATTCGT ACAAGGCAGG TTTGTCAATT AAAACAGTCC AGAGTTTGG TCTTTCAACT	11460
TCTAAATCG CATCTAGGCT TGTGATTCA TGTGCTTTTA AGGTACGACT CGCTGTACGA	11520
ACTAAGCCTG TTACAGCATG ACCACCTCGT TCAACGATTT GATATTGGC TACAAGTTCA	11580
TGGTCTTGT CGTCCGTATT GACGATTTG CTGGTCACAT GAGTTTCAAC CTTGCCATGT	11640
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TTGACATAAA CTTGAGAATC CATGTAGACG CCATCAAAAG TAAGGCGAAC ATTTTCTTG	11940
AGGTCTTTT CATCTAGTTT GAAAGTCTTG CGATACCAAG CTTCCCCACC GTTGAGCTGT	12000
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GGTAAATCTA ATTTTTCCTA CGTAGATACG TCTGCATCAG GTTTAATGGC TTCCTTAGAA	12120
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TGATTCACTT CTTCAATTGT TACAGCTTTA GCATCTTCTT TGAGCGGTTT TTCTTGATTT	12240
GAAGCTTGTG ATTCTATCCT TGGAGCTTTT TCTTCCGGTT TAGCAGACAC TTTTCTCTCT	12300
TTTGGAGTTA CGGCTTCATC TTCTTTCTTC TCAGATGCAA TAGCCTCAGT TGAAGTAGGT	12360

938

TCACCTTTGTT CTGTCCTTTC AACTATATTT TTAGTTTCCA AAGCTTTATC AGCCTTTTCT	12420
TCTACTATCA TTTTTCCTC TTTAGGTTC TCAGCAGTAT GAGTAATAAG TGTTCATCC	12480
GCATAAACTA CAGATTCTCC AGCTATATTT CCTCCTAATA AACTGCACA AGTCCCAATC	12540
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ATAGAATACA AGGAAGACTA CTGCACCAAG GATTGCTTTG ATATCACCAG TTGTAGTGT	13140
ACCAATGTGC CAACCAAGAA GTTTTTCGAT TGGTCCTTCA AGAGTAGAGT GAGTAATCAA	13200
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TGGTGCAATA AGTGACCTG AAAGAAGGAA GAGTGGCAAC AAGAGTGTTT CGAAGATAAT	13320
CATACGGAGC AATTACCAC GAGTTACAAC CAAGAGAGCT GGAGTAACAC CCATAGCGAT	13380
GATACCTGCA AGTGGCAAGA TACCATTTC AACTTTTGAA AGAAGCACTG CTTCAATCAA	13440
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CAAAGATACA CCGGCAGTCA AACCAAGAGA CAACCATCCT TTGATAACAA GACGCCATTT	13680
ATCTGCATCT GCAACACCTG CAATTGGATG TGGAGTTCCC ATAATACCGA TAACGATACC	13740
AAGGATGAAA CCGATGAAGA ATTTAGATCC CCAGAAACCG ATTTCTTGT TCAATTTAGC	13800
AGCATCAAAG TCATATTTAT CAAGGCCTGG GAAGAATTTT TCAAAAATCT TATCCAAAAC	13860
CATGATAACT GGGTTCATCA TGTAGTTTAT GTGAGTTGAT GTCATTGGTG ATGAACTTGG	13920
GGCGTTAAGA AGGTCATCAA ATGTAGGTTT CATCAAGTCA GAGTTGATAA TTTTCAACAC	13980
ACCGACAAGG ACGATAGCTG CTGTAGCAAT AAAGAGTGAA ACCCCTTGAC TCACACCATT	14040
GTTATCAGCA TACCATTTAA TCAAGAGACC TGTGATAGAC AAGTGCCAGA TATCAAAGAT	14100
ATCGACATCA AGTGTATCTG TTTCTTCAT AGCTAGCATC ACTATGTTGA CAATCAACAT	14160

939

GATGAGCAAG AAGTATACTG TCCAAGCAGA ACCCCAAGTG ATTGTAGCAA GTGGTGCCCA	14220
ACCAACGTCG GTAATACTCA ATTGGATACC AGTGTTTTCA ACGAATTTTG CTAGTGATGC	14280
TGAGAAAGCA GTGTTTAGCA TACCGATGAT AGCACCGATA CCTGTAAGAG CGATGGCAAG	14340
TTTGATACCA CCTTCAAGCG CTTTGGAGAA TTCTACTCCA AAAAGTAAAG CCAATACTGT	14400
CAAATGATT AACATGATGA CAGGTCCACC CATTTCTAAG ATGGGATTGA AAACCTTTCC	14460
GATTAGGTCA AAGATTGCAT CCATAACAGT TCCTCCCTTT TTGATGTTAT ATGAATGTTA	14520
ACAAATTAGA ATTAGCTTAA TCCGTGTTCT TTAATAGCTG CTTCAATATT GTCAAATACT	14580
GGAGCGCTCA TTGCTGGGAT ACGGAATAAG ATTGGCCCAG CTTGCATAAC TGGGATACCT	14640
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TCTTCGTTTA CATCTTTCAC CATGACTGCA TCACAGTGAA CATCATAACC ACGGTTTGAA	14760
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GGTGCCTTCA GCAATGTAAG TATAAAGGCG TTCTGGTTCA GAAATTTTGG ATAGGTCTTC	14940
AAGATGACCA TTTCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTTTG TTTGACTTGA	15000
ACTTGAATTA TTAATGATAA AGAAGAGTAG GGATACTTCT ACTTCCTTAT CAGGAGCTAT	15060
CATATTGTGA AAAGTTATTG GTTTTTCTAA TCGAACAACC ACCACTTCTC CAGCTAGATT	15120
ATGAACAATA TCTGTGTGAG GAATCGCTAC ATTGGGCAAG TCCTTTCCTA GAAATCCAT	15180
ATCTAAACCA GTTGGAATG ACTTTTCACG CGTGATCAAG GCTTCACGAT AAGTTGGAGT	15240
GACAATTTCT CGTCTTCCA ATAAAGTTGC AACCTGATCA AAGAGTTGTT CTTGACTATC	15300
CGCTTCTAAG CAAAACACAA GGTTTTGTG AAAGAAATAA TCTAATACCA TAAGTTTTC	15360
CGG	15363

(2) INFORMATION FOR SEQ ID NO: 140:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28882 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 140:

TAAGACTATT TAATAGTGGA GTGAAATAGG ATACGAACAA ATTGATTAGG AAAATCAAAT	60
GAATTTATAG AAATCTTTTA GCAGTTATGT TATCCTATTC TAGTTTCAAA ACGCTATAGA	120

940

AGCAGCATTG TGCTAGTCA GATTCAGTTT ACTATACTAA AACGAGTAGC TTGAAATCAA	180
AAAACCCACC CTCACAGGCA GGTTTTATCT GTATTATTCA GCTAGATTAT GCTTTACCTT	240
CTGAACCGAA TACGTCGATA CGTCTCTCAA CCGATGCTTG GATAGCTTTT ACACCGTCAG	300
CCAAGAATTT ACGTGGGTCG AAGAGTTTTT TCTTGTCGTA TTCTGCTTCG TTTGCTTCGT	360
AGTCACGAGC AAATTTACGA GTTGCGTTAG CGAATGCGAT TTGGCATTCT GTGTTAACGT	420
TAACTTTGGC AACACCAAGT TTGATAGCTG CTTGGATTTG CTCATCAGGA ATACCTGATC	480
CACCGTGCAA TACGATTGGG AATCCTGGAA GAGCTTCTGT CAATTTTTCG AAGTGGTCAA	540
GGTCAAGACC TTCCAGTTT ACTGGGTAAG GACCGTGGAT GTTACCGATA CCAGCTGCCA	600
AGAAGTCGAT ACCAGTTTCA ACCATTGCTT TAGCGTCTTC GATTGGAGCC AATTCACCTT	660
TACCGATGAT TCCATCTTCT TCACCACCGA TAGTACCAAC TTCAGCTTCT ACTGAGATAC	720
CTTTAGCGTG TGCTTTTTC ACAACTTCTT TAGCCAATTT AAGGTTTTCT TCAACTGGAA	780
GGTGTGAACC GTCAAACATG ATTGAAGTAT AACCAACTTC GATACACTCA AGTGCATCTT	840
CGTAGTGACC GTGGTCAAGG TGGATAGCTA CTGGTACAGT GATACCCATT GATTCAACAA	900
GGTTAGCGAT CAAGTTGCGA GCAACTTTGT AACCACCCAT GTATTAGCA GCACCCATTG	960
AAGTTTGGAT CAAAACTGGA GCTTTTTTAG CTCTGCTGC GCGCAAGATA GCTTGAGTCC	1020
ACTCAAGGTT GTTTGTGTTA AATCCACCAA CTGCATAACC GTTGTACGG GCTGCTTGA	1080
CAAATTTTTC TGCTGAAACG ATTGCCATTT TATCAGGCCT CCTGTATATT TTTATGGGTC	1140
ATCCCATTTA CATGTTCAT TTTATCACTT TTTGCCAAAA AAATCTAGTT TTTCCCGCAG	1200
TTTCGATTGA TTTCTTCTA ACTCCATCTA TGTAACCCT TTCTCTCCCT AGTCTTGAC	1260
GACTTTTGA AAATCTATAA AGAAGGTAA ACTATTCTCC TCCATCTCGA AACGATAAGC	1320
TAATTTTTC TGTCTAATA GACTCTTAAC CACAAAGAGC CCCATACCAG ACCCCTTGAC	1380
CTTGCGACTG GCATTGTCAG AAAAAGACTG GGCTAGTTT TCTTGTTCCT CTGAGCTACA	1440
GCTATTTTCG ATAAAAAGTT CTCCTTCTCT TTCTCCAATT CGAACTAAGC CACCTGGAAC	1500
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CAAGGCATAA TCTTTGACCA GATTTTGCGT CATCTGGAGG AGGTCAATTG TTTCCCTATC	1680
ATCTCGCAAT TCCTGCACAG AAGAGAGGGA AAGTATCTGC AGAACATGGT GATTGAGTTC	1740
ATCCACAATC CCCAAGGCAA CTCCAGATA CTGGTCTCTA TCCTTATAAC GACCGATATT	1800
CTCTCTCATA TTTTCGATTA GGATTTTCAA ACTAGCCAGC GGTGTTTTCA ATTCATGAGA	1860
AGCTCCTCGT AGGAATTCGA CCTTCATCTT CTCCAGCTGG AGAATGGCTT CATCTTTTC	1920

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ATGCAAGTCC GCAATAACAG TCAAGAGATG CTGGTAGAGG CTATTGATTT GTTCCTTGAG	1980
ATTACCTATC TCATCCTTAG AATCCACGCG CAATCGCACT TGGGAATCCA GGTCCATCAT	2040
CCGACGGGTC ACCCGCTTGA TTTCCAAAAT CGGTGCAACA ATAGTCCGAG CGTAGATGTA	2100
GGCCACCAAA AGGGAATCA GAAAGGAGGC CAGCAAGGTA TAGGGAAGAA ACTGGAGACT	2160
GATTTGCTCC GCTTCCTTTT GTAAATCCAT GGAAGCTAGA AACTGGAGAA TCATAGTACC	2220
ACCGTCTTGC GTTTTCACCT CGCGCTCCTC AATAAGAGA GAGGTGTCTT GGCGTCTGT	2280
GTCCAGAGGA AGACTGTCTT TGACTTCTAA CTTGTCTCTG GTCATCTCAC CTTTGACGGT	2340
CCCCTTGATA TCACTAGTCT GGAATACAA GTCTAACACT TGCTCGATAC TCTGCCTATC	2400
TTTCCCTTCT AGGGACTGGG CAATGGCTGT TGCTTTTGA CCAATGGTTT CCTGACGATG	2460
ACTCAGATAA GTCGAAGGAA AAAGAAAATA AATAGCTAAA TGAAGGCAGA TAACCAGAAC	2520
ACTAAATATC GAGAAGGTAT AGATAAATAT CTTTGCAAAT AAACCTGTTT GTTTCATTTT	2580
CGCTCCAATT TATAACCAAC ATTGCGCACA GTGAGGATAC AATCCAAGTC TAGCTTTTTC	2640
CGCAATTCTT TGATATAAAC ATCAATAACA CGGTCAAAGG GAACCTCATC TGTCGCTTTC	2700
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TCCAGAAATT CCAACTCTTT GGCATTGATA GGCACCTCTT GACCTGCGAG GCTTGCACTG	2820
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TAGCCATCTG CCAAAGAGGC AAAGGCACTC ATCTTGATTT CCTCATCTTG AAAAGCTGTC	3000
AACATCAAGA CAGGAACCTG ACTGGTTTGA CGAATCTCAG CTAGGACTTC TAAGCCGTTG	3060
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GCTGGCCTTT TGTCTGCAAG CAACTGACCA CTAGATAAAA CGTTGTGAAA TTCCTTTCTC	3360
ATAAATTCCA TAACTTTAGT ATATTATATT TAAGCACTAA AGTACAAAGA AAGCAACTGA	3420
AAGCAATGAT TTTCACCACT GCTTTCGGAT TTATTTTGAA TTGTTAAATA GCCATTCCCTA	3480
TCCACTATTC TTGAATAGAA ACACAAGATG CAATCTTTAT TCTAGACTCA TTTTTCAAA	3540
TTTATTCACC ATCCAGCAAG AGCTCTTTTG GTTGTCTTCT AAGGAGATTG CTTGAAGCAA	3600
GGCCCATAAC GAGAACCACT AGAACCAAG CAAGGACAAA AATGATGATA AAGTCTGATG	3660

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TCTGAATGGA AATGTCTAGG CTCGACAAGG TCTTGCTAAA GCCATCTACT TCTGCACCAC	3720
CACCAAGGTT AGAGGCTTGA GCCGCCTTAC TAGCCTGTTT GGCAACACCT GAAGTCACAT	3780
TGGCAAGGAC AGTGTTCCTCA ATTGCACGGG CAGTGTAATT AGCTAGGAAG TAAGCAGAAA	3840
CTAGAGCAGG GATAGCAATC AAGATAGATT CGGTGATGAA TTGACCCAAG ATACTTGCCT	3900
GCTTGAGGCC GATAGAGAGG AGAATCCCA CTTCTTTCG ACGGGCGTTG ATCCAAAGGC	3960
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CCATCTTGTA CATACCAGAG ATAGATTGCT CAAGAGCTGG GTAGTTAGAG GAGCTCTTGA	4080
CGAGTGTGTA GCTCTTCCAG TTGATACCAC TGATGCCATT CAACTCTTTC ATAACATCAT	4140
CCAAGTTCTT GTCTGCTGTT ACAAAGAAGG TTGCGTCCCC ATAAATGGCT GTGTCTTCTG	4200
TGTATCCATA AAGTTTTCGA GCAGTGTGAA TGTCTGTAAT AGCTGTGTTT TCGTAAAGTT	4260
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CAACTGTTTC CTTGGCTCCT TTTTCATTAT CTGCATCGTA GATATTAGAG TCCAGTTTAA	4380
CCTGTCCCC TACTTTCAG CCGTGTTCG CTGCCAAGTC CTTGTGCAAG AGGATTTTAT	4440
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AATCTCCGAT AGCGTTGATA CGTTTGACAT AAGACTCAAT GGCTTGTTT TCGGTGATTT	4680
TTTTGATGTC TTCACCTTG ATATTCCAG CACCACGAGG CGTTCCTTGG TTGACGCGAC	4740
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GACCACCTGA TAACTGGAGA ACATTCCGCT TGATCTGGCT TTCATCCAAA CCAAGCTCAA	5280
GAAGTGATT CTTGCTTGCC TTTTGTGTA CCAATCGGAT ATTTCCAGC GGAGAAAGAT	5340
AATCTATCAA GTTATAATTT TGAAAGACCA GGGAAATATG GTGCATGCGA TGGTAAGAAT	5400
AGCCCTTCTT ACGAATATCC TCTCCTTGAA AAAGGATAGA ACCTTCAACA GGACTATCTA	5460

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GACCAGCAAG TAGGGACAAG AGTGTGGATT TTCCTGCTCC TGA	5520
CTCCCCA ATAATACTGT	
AAAATTTTCC GGGTTCAAAA TTATAATTGA TCTGATATAG GACTGCTTCA GCAGTATTCT	5580
TATAACGGTA GGTAACATCT TGTAATTGTA ATAAAGTCAT GATTTCTCCT TCTTAACTAA	5640
TAGATGATAA AATTTCTTTC GGTGATTTTC TAAATAAGAA TAGGAAACAA AGGGCTACAG	5700
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ATAAACTGCT TGCTTTGGCT AGTGATCTTT GTAAGCTTGC CTGATCTCCA CTGCTAGTA	5820
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CAAGAGATAC CAAAACCTACC TCTAAACAGA ATTGTAGGAA GATCGAGCTC TTGCCTTTTC	5940
CAAGTGCAAG TAAATCCCTC ACTTCATAGA CCCGTTCTCT CAACCAGAGA GACAAAACCA	6000
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GGAAAGTTGC AACTGAGTCT TTGATTTGTT CAAAAGCCTT GTTTTCCTTT TCGACTTGGT	6120
AGCCTTGATT TTCCAAGGCC AAGTTTCTA CCTGCTTCAT GAGTCCGTCC ATTTCTTAG	6180
GATTTTCTAC ATAGAAGCGT GCTGCACTGA CTTGAGCTTC ACTATTGCCC AAAAGGGTTT	6240
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944

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945

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946

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948

CATCTACATA	TCCCACCTGT	ACCCCAGCAA	TTGGTCCGTC	AAATGGAATA	TCTGAAATAG	14340
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950

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CTTTCGGTCA TTCTCTTTC TATCCCTATC ATAACCTATT CTTTTTCCC ATCTTCTAAT	19920
CTTAACATTT GGCTATCTAC CCAACCTATC TTGGCACAGA TTTATGCCCT CCCCTTAGCT	19980
ACTGCAACTA TGGCTGCTAT TTTAAGTTTC TTATTTTTTT TCCTATCTTT TTACAAGAAA	20040
AATAAACAAA TACGGTTTTA CTCTGGCATT TTGCTCTTAC TATCGCTCAT ATTACTATTA	20100
TTCCGAACAG ATAAACCCT TTCTTCTGCA TCAAATAAGA CTAAACCCT AAAATTAGTA	20160
ACTTGGAACG TCGCTAATCA AATAGAAGCA CAACATATTG AGCGAATTT TAGCCATTTT	20220
GACGCCGATA TGGCTATATT CCCTGAACTA GCTACCAATA TCAGAGGTGA GCAAGAAAAC	20280
CAGAGAATCA AACTATTGTT TCATCAAGTT GGACTTTCTA TGGCCAATA TGATATTTTC	20340
ACTTCTCCAC CTACCAATAG TGAATAGCT CCTGTGACTG TGATTCTCAA GAAAAGTTAT	20400
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ACAGAAATCA CATTTTAATT ATTTTATATA AAATCACCCC TCTAATGTTT ATAAACTAGA	20880
GGGGGAATTT GTATCCTACT ATCGTTTAA GCACCTCTGC ATTGACTTTT TCTTCGAGAG	20940
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GGAATTTGGT GATTTCACA AATGGAACAG CAGGTTGGAG CGCCCTTCG ATGGCTGAAA	21240
GGTTAAGCTC AGCTACATAC GTTCTGGAA TATCGTAAGC CTTGGCAGTG ACTGGATGCA	21300
CTTGGCCAAG GAAACCAAGA ACTTGGTCAC CGAGTGAAAT CACGGCTGTA CGACCTGGAT	21360

952

GAAGGCTAAC GATTTTCAGAT GTTGCTGTAT AGGTTACTTG GAGTCCCAA CGAGTAAATA	21420
GGGCTTCAAG GATTCCCTTA GCATAGAAGA AATCAACTGG AACTGCTGCT GTTTGGAAAT	21480
CTTTTTCAGC AACCAAGCCT GTCAAGGCAA AGGCAAAGCT GTTGATCTCA TTTGGAAGTT	21540
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CTGTGAACTC AACTGCTTTT TCAGGAGTTG TCAGAGCATA GGTGATGATT TCTGTCAAAC	21780
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CTTCCACATC AGAGGTATCA AGCTCACCCG CTGAAACGAT ACCCTTACGC ACCGTCGCGC	22140
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AAAGGGCATC TGCCGCAGCT TCATTAGTTT CTGTTAGAGT AAATTTTTTA AAGTTGACTG	22740
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CCTCACCTGG CACGGCATCT TCAGGCAAGA TTTGGATGCC ATCTGCGAAT TCCTTAGGCA	22920
CAACTGAGTC AGAAATCCC AATTCACCAA GTGAACAGAT CATTCCAAGT GACTCCAAAC	22980
CACGGATTTT TCCTTTTTTG ATTTGTAGT TATCAGCGAT ACGAGCTCCT GGAAGAGCCA	23040
CCATGACCTT GATCCCAGCA CGCACATTTG GGGCACCACA AACGATCTGA CGCTCTTCTT	23100
CTTCGCCAAC GTTAATCTGA CAAACATGGA GGTGAGTCTC TGGCACATCT TCGCAAGACA	23160

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CTCTAGTTCT TTTCTTTTCC TATCAATTCA ATAGAAGAAT CCTCTTCTTA CCTTAATTTT	23400
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TCCTCCTCAT GCATAATGAA ATAGGTTTCA GAGTCAGGAT TTCCCAACTC AGTTGACAAA	23760
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CACGGATATC GTTGATTCCA TAACGGAGCA TAGCTACAG CTCTTGTTCCA AGACCAAAGG	24000
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CTTGAAGATC AGCCATAGAG ATATTTTTCC CAACTACCAA GCCTTCGATT TGGTGAATT	24300
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AAACGTGACG GTGACCAGTC GCAACTGGAC GACCTGGAAG CGTCACATCT ATACTCTCGC	24660
TAGCCAGTTG AGCCCGACT TTCTTTTCTT CCAAGAGCTT AGCTGTTTCT TCAAAAGCAG	24720
CAGTCAAGAC ATCAGGAGCT TCATTGACGT GTTTCCCGAT GATTGGACGC ATCTCAGCAG	24780
AAACATCTTT CATCCCTTTG AGGATTTTCA TGAGCGAACC CTTTTTACCA AGGACAGAGA	24840
CACGCAAATC TTGCATCTCT TTTTCATTTT CAGCAGTAAT CTGCTTCAAG CTAGCCAGCG	24900

954

TTTCTTCGCG	AAGCGCTTTT	AATTGTTCTT	CAATAGTTGA	CATATTCCT	CCATCAGTCT	24960
CTCGTAGATA	AAAAGAAAAC	CACATGCCAA	AAACTCCACT	CGGAGCGTTG	ACACGCGGTA	25020
CCATCCGTTT	TCATCTGACA	AGTCAGACCT	TCATTTCTAA	ATCCATGCGC	AAGTGAATTC	25080
ACCCAGCTTT	CATATAGAGA	GCTTGCAGTC	ACGGCTCTCC	TCCCTGATAT	ACTTCCCTTG	25140
GGCTACTAGT	CTTTCAGATT	CCTATTCAAT	TACTACTTAG	TTTATCAGAT	TTTACCATT	25200
CTTGCAAGAC	CTATCTTACT	TCTGCTTGT	AGCTTATTCT	TATCTAAATT	TATATAAACc	25260
TTATCTAAAT	TAACATTTTA	TAATTTTGT	AACAAAATTA	AATTAATTGA	CACTCCCCTA	25320
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ATGCCACCTT	AACCGTGATA	ATAGCTAGTC	ATCAATAAAA	AACTATTTGA	ATAAGGATTC	25440
TCCATTTGAT	TCAATCACTT	CTTTATACCA	AGTAAAAGAC	ATTTTCTTAT	ATCGATTTAA	25500
TGTACCACCT	CCATCATCGT	TTCGATCAAC	ATAAATGAGA	CCGTACCTTT	TAGAAAGTTG	25560
TGCAGTGGAC	ATAGAAACAC	AGTCAATACA	TCCCCAAGAC	GTATAGCCCA	TAATTTCAAC	25620
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TCCATTTTCT	ACTATAAATA	ATGGGATTTG	ATAACGGTCA	TAATATCTAT	TTAAAATTAT	25800
ACGTAGTCCA	ATTGGATCAA	TTTGCCATCC	CCACTCTGAA	GACTCTAAAT	AAGGATTTAC	25860
TAAACCACCA	ATAATATTCC	CTTCTCCTGA	ATTATACTGT	GTTGGAAGAG	CAGATTGAGT	25920
CACACTCATG	TAATAGCTAA	AGGATAAAAA	ATCTACGGTA	TAATTTTTTA	ATAACTCTGC	25980
ATCTTCAGCT	GCAAACCTCTA	TGTTAATGTC	ATTTTCCTTA	AAATATCTTT	TGTCATAATT	26040
CGGATAATAA	CCTCTAACAT	GCACATCTGA	AAATAGATAA	TTTAGATTCT	CATACTCATG	26100
AGTCGCCCAT	ACATCTTTTG	GATTTGGAGT	CATTGGATAA	GCTGGCATAG	CTAATACCAT	26160
ACATCCCACC	TTAAACTCTG	AATTAATCTC	ACGAGCAATT	TTTGTAACCA	AACTTGAGGC	26220
GACTAATTCA	TGATGTATAG	CTTGATATAA	TTCTTGTTTC	GAAAGATTCT	CCTTAGGTAT	26280
ATCTATTCCT	CCACTAGTAA	ATGGTAATTC	CAAAACAGAG	TTTACTTCGT	TAAATGTAAG	26340
CCAATATTTA	ACTTTATCTT	TATACCTTTC	TAAAACTGTT	CGAGCAAAAT	TTTCATAAAA	26400
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ATAGTGTGAA	AGAGTTACAA	GTGGTTCTAT	CCCGTGAGCA	TGTAGTTCAT	CAAACAATTC	26520
ATCATAATAT	TTCAACCCAG	CTTCGTTAGG	TTCTTCCTCA	TCTCCTTTTG	GAAAAATTCT	26580
ACTCCATGCA	ATAGAAGTAC	GAAAAACATT	AAAGCCCATT	TCAGAAAACA	AGGATATATC	26640
TTCTTATAT	TTATGATAAA	AATCAATACC	TATCAATTTT	AAGTTATCTT	CTGTAGGATT	26700

TTCTGTTGCT TCTCCTAATC CACCTTTGGG TAACACATCC TGAAC TGATA AGCCCTTACC	26760
ATCTTCATTA TATGCTCCCT CTACTTGATT AGCTGCAACA GCTCCACCCC AAAGAAAATC	26820
ATCTGGAAAA ATGGTCATAA CTTTCCTCCA TTATAATATT ACCAGTAATT CCTTAGAATG	26880
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AATTACTGGT GTAAC TGTTT CGTAGCCTTT AGTCTTGATT AAATCAAGT CCATTTCAAA	27000
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AACCTTACCT TCCTTTGGGA TAATCGCTAC TCCGTCTCCA ATTAGTTTAT CTGAAAATGT	27240
TTTATCCTGG ACATCGCTTA ACGGAATGAT TTCTCCTGAT ATAGGAGAAA ATATCATTTT	27300
TTTATTTGAA ACTCCAGCTT CAACTTCTAA ATTGCTAGAA CTCTCTTCTT CATCGATTCC	27360
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AGCAAAATAGA TATGCTTTAA CACTAGTAAG ACCTGCAAAT AATCCCGCTA ATCCACCACC	27540
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AAAAGCCCAA TGCATTCCAG TCATAACAAT AAATGGCATA ATAGCACCAA GAATAGCTAA	27840
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TGATGCAGAA TAAGCTAATA ACAGCGGTAA GAAATAATAT GGAGCATCCC CAAAAAATGT	28260
CAAAAAAGCA ATAGCTGAG AATCTGATTG CAATATACCA AGCATTTGGTA AAATGATTAC	28320
CAAGACTTTC AACATACCTC CCCCTAACAT TGCTGGAATG ATTGAGTCA TGGAACCAGC	28380
GATATACTCA ATGATTCTTT CTAAAAATATT CCCTTTGTGC CCTTGAACAA CTGAATCGGA	28440

956

TTCAAAATTG CCAAGTTTAA CGAATTCTTT ATAATAATTA GCTACATCAT TACCAAGTAT	28500
AATTTGATAT TGTCATTCT TTTTCATAAT ACCTATTACA CCTGGTATCT TCTTCACATC	28560
ATCATCATTG ACTAAATTTT CATCTTTTAA TTCTAATCTT AAACGTGTTA CACAATGGGT	28620
AACTCTATTG ACATTTTTTT CACCTCCAAT TACATCGAGG ATTTTTTGTA CCGTATCTTT	28680
ATAACTCATG GTATTCTCCT ATTCTATTAA TCTAAATTTT TTGTTAAGCG ACGAATATGA	28740
GCCATCAAAT AACTAATTC ACTAGAAGTC AGCAAATAAT TGTACTCCGT TTGTATAAAC	28800
ATTGCTACCT GTTCACCACA TTCATATTCT CTAGGATATT TATTTTTCAT TAATGCTAAC	28860
AAGTCTTCAT CATCATCGTC GG	28882

(2) INFORMATION FOR SEQ ID NO: 141:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12835 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 141:

GCCTATGCTT TTTTCAAAA AATGCTTGAC TTGAGACGGG AACTAGGGAA GTCTAAAGGC	60
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TTATATATGT AACTGACTTC GTCGATGCTT ATCTACAACC TCAAAGCAGT GCTTTGAGCA	180
ACTTGCGGCT AGTTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATTATA TTACTTTCTA	240
TTGTAGGAG GTGGCTTATG AAGATTCCTC TCTTAACTTT TGCAAGGCAT AAATTTGTTT	300
ATGCTCTGCT TACTTTGCTT TTTCTTGCTT TGGTTTATCG TGATGTTTTG ATGACTTATT	360
TCTTTTTTGA TATTCATGCG CCGATCTAG CTAAATTCGA TGGACAAGCA ATTAAAAATG	420
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CATTTATTAT TCCAATCATC ATTGTTTTGC TAGGTTTTCA ATATATTGAG CTGAAAAATA	540
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CTTGCAAGT TGCAAGTATC CCTTGTTTGA TATATTTAGT GACTGTGCTG ATAATTGCAA	660
TTATAACCTA TTTCTTTGGG ACTTTTCTC CTCTTGGATG GAATTCTCTA TTTTCTGATG	720
GAAGTGGTTT ACAAAGACTC CTAGATGGAG AGATAAAAAG CTATTTGTTT TTTACTTGTG	780
TCCTACTAAT CGGTATTTTC ATCAATGCAA TCTATTTTTT ACAAATAGTT GATTATGTGG	840
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TTTATAGTGC CTGCTTAC TATATGGTTC CTATGACGAG TTTGATGCAA GCTAGCTATG	960

957

GGGATGTAAG TTTGATGAAA CTCTTTACTC CTTATATCCT TTATATTGTC CCTTACATGG	1020
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ATTGTTTAC TACTTCGTAT AGTTCTGATG ATGATTTTGA TAAACCATCT ATTGTCAACA	1140
GCGGTTCAAA AGCAGGATGC TGTATCTTT TTCAAGAGAG AATTGATTTC AATTTTTC	1200
TATAATGACT ATTCTGAAGC GAATTTAGAA ATCCCCAAAC TATTGTTAAA CCTTTCGCTT	1260
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CTACTGTCTT ATCTGATAGC ACTGATTAGT GCGGGCGCTG GTTTTTCCTT TTTTCTCTAT	1560
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TCTGGCAAGA CGGTCTTTT AAAGATACTT GCTGGTTATA TTAAGCTTGA CAAAGGAAAA	1860
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958

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TGGAGAATCA CTGGATTTCAT TGCTTTACGA AGCATTGCG GTTGTCCGTG AAGGTGCCAA	3000
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TGGTGACGTG CCAGAGATGC GTACAGGGGA AGGGAAGAAC TTGACTGCGA CCATGCCGGT	3120
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GCAGTCTAAG ACTATTGGTT TGTCTGATTC AGGGATTGAC AGGGCTGAAA GCTACTTCAA	3600
ACTTGAAAAC CTCTATGACA TCGAAAACGT GGCTTTGACT CACTTTATCG ATAACGCCCT	3660
TCGTGCCAAC TACATCATGC TTCTCGATAT TGACTATGTG GTGAGCGAAG AGCAAGAAAT	3720
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TAAGTTTAAA GCGGTTGTCG AAGACGTTAA GGCTCGTTAC CAAAAGGGTC AACCTGTCTT	4080
GGTTGGTACA GTAGCGGTTG AAAGTAGTGA CTACATTTCT AAGAAATTGG TTGCAGCTGG	4140
TGTTCTCAC GAAGTCTTGA ATGCCAAAA CCACTATAGA GAAGCCCAA TCATCATGAA	4200
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CAAGCTTGGT GAAGGTGTTG GTGAACTTGG AGGACTTTGT GTTATTGGTA CAGAACGTCA	4320
TGAAAGTCGT CGTATCGATA ACCAGCTTCG TGGACGTTCA GGTCGTCAAG GAGATCCAGG	4380
TGAGTCACAA TTCTACCTAT CTCTGAAGA TGATTTGATG AAACGTTTGT GTTCTGAACG	4440
CTTGAAGGA ATCTTTGAAC GCTTGAACAT GTCTGAAGAG GCCATTGAGT CTCGCATGTT	4500

GACGCGTCAG GTTGAAGCAG CTCAGAAACG TGTCGAAGGA AATAACTACG ATACCCGTAA	4560
ACAAGTCCCTT CAATACGATG ATGTCATGCG TGAACAACGT GAGATTATCT ATGCTCAACG	4620
TTACGATGTC ATCACTGCAG ATCGTGACTT GGCACCTGAA ATTCAGTCTA TGATCAAACG	4680
CACGATTGAA CGTGTCGTTG ATGGTCATGC GCGTGCCAAA CAAGATGAAA AACTAGAGGC	4740
AATTTTGAAC TTTGCTAAGT ACAACTTGCT TCCTGAAGAT TCTATTACGA TGGAAGACTT	4800
GTCAGGCTTG TCTGATAAGG CCATCAAGGA AGAGCTTTTC CAACGTTCTT TGAAGGTTTA	4860
CGATAGTCAG GTTTCAAAAC TACGCGATGA AGAAGCAGTT AAAGAATTCC AAAAAGTTTT	4920
GATTCTACGA GTGGTGGATA ACAAGTGGAC AGATCATATC GATGCCCTTG ATCAATTGCG	4980
TAAACGCGTT GGACTTCGTG GCTATGCTCA GAACAACCCT GTTGTGAGT ATCAGGCAGA	5040
AGGTTTCCGT ATGTTTAATG ATATGATTGG TTCGATTGAG TTTGATGTGA CACGCTTGAT	5100
GATGAAAGCA CAAATTCATG AACAAGAAAG ACCACAGGCA GAACGTCATA TCAGTACAAC	5160
AGCGACTCGC AATATCGCTG CTCACCAAGC AAGTATGCCA GAAGATTGG ATTTGAGCCA	5220
GATTGGACGC AATGAACTTT GCCCATGTGG TTCTGGTAAG AAATTTAAAA ACTGTCACGG	5280
TAAAAGACAA TAAATGAGA TAGTTTAGAG GCGGATATCT TGTGAAAAGT AAATTTTAC	5340
TGGGTATCCG TTTGCTTTAT AAGGAGATGA GTTATGGTAT TTACAGCAAA AAGCTCTAAA	5400
ATAAATATAG AAGAAGTTG TGCCTTGTCA AAATTAGAAG GTCAGGCTTT GGAGAGGAAA	5460
TCACAGCGAG ATCAAGAGCT AGAAGCCATT ATACGTGGAG AAGACCAGCG AATTCTCTTG	5520
GTAATCGGGC CATGCTCATC TGACAACGAA GAAGCTGTCC TTGAATACGC TAAGCGTTTG	5580
GCAGTCCTAC AAGAAGAAAGT GGCAGATCGT ATCTTTATGG TTATGCGTGT TTATACTGCC	5640
AAACCCCGTA CCAACGGAGA TGGCTATAAG GGCTTGATTG ACCAGCCTAA CGCGACAGAA	5700
GCGCCTAGTC TTATCAATGG AATCAAAGCC GTTCGCCATC TTCACTATCG TGTCATCACA	5760
GAAACAGGGA TGACAACTGC TGATGAAATG CTTTATCCTG AAAACCTTCC GCTTGATAGT	5820
GATTTGATTT CTTACATGGC AGTTGGTGCC CGTTCAGTTG AAGACCAGCA ACACCGCTTT	5880
GTGGCAAGTG GGGCAGGATT TTCTACTGGT TTTAAAAATC CAACCTCTGG AAATCTCAAT	5940
GTCATGTTTA ATGGGATTTA TGCTGCTCAA AACAAACAAA GTTTCCTTTT CTTAGGAAAA	6000
GAGTAGAAAA CAACTGGGAA CCCGCTTTCA CACGCTATTC TTCGTGGTGC TCTTAATGAG	6060
TATGGAAAAA ATATTCCCAA CTAATATTAT GACAAATTAA TTGATACCAT TGCCAGTAT	6120
GAGAAAATGG GCTTGAAAA TCCTTTTATC ATCATTGATA CCAATCATGA CAATCTGGT	6180
AAGCAGTATA TTGAACAGAT CCGAATTGTC CGCCAGACCT TGATTAACCG TGCTTGAAT	6240

960

GAAAAAATTA AGCAGTTCGT TCGTGGTTTT ATGATTGAGT CTTATCTGGA AGATGGTCGA	6300
CAAAATGAGC CAGAAGTATT TGGTAAGTCT ATCACAGACC CTTGCCTGGG TTGGGATAAC	6360
ACAGAAGCTC TTGTCAGAGA AATTTACAAA ACGTTAGGAG AATAAGATGG CATTTATTGA	6420
AAAAGGTCAA GAAATCGATA TGAAGTCAT CAAGGCTGAA ACCCAATTGT CTGCGGAAGC	6480
CTTGAGACTC AAGGAAAGCC GTGACAGGGA ATTGGCAGAT ATTATTTTCAG GGAAGATGA	6540
CCGTATTCTC TTGGTGATTG GTCCTTGCTC TTCTGATAAT GAAGAGGCGG TCTTGAATA	6600
TGCTCGCCGT TTATCTGCCT TGCAAAAGAA GGTAGCGGAT AAGATTTTCA TGGTCATGCG	6660
CGTGATACT GCTAAGCCTC GTACCAATGG AGACGGCTAT AAAGGATTAG TTCACCAGCC	6720
AGATACTTCT AAGGCTCCAA GCCTGATTAA TGGCTTGACG GCTGTGCGCC AGTTGCACTA	6780
CCGCGTGATT ACAGAGACTG GTTTGACAAC GGCAGATGAG ATGCTTTATC CGTCAAATCT	6840
GATCTTGGTG GATGACTTGG TCAGCTACCA TGCCGTGGA GCTCGTTCTG TGAAGACCA	6900
AGAGCACC GC TTTGTGGCTT CTGGGATTGA TGCAACAGTA GGGATGAAAA ATCCAACTC	6960
AGGAAATTTG GGTGTATGT TTAACGCCAT CTATGCTGCT CAAAACAAGC AAACCTTCCT	7020
TTATCATGGG CAGGAAGTTG AGACATCAGG TAATCCTTTG GCCCATGTTA TCCTCCGTGG	7080
AGCAGTCAAC GAGTATGGCA ATTATATGCC GAATTACTAC TATGAAAATC TACTCCAAGC	7140
CATTGAACGC TATGAAACCA TGGGACTTGA AAATCCTTTT ATCCTCATTG ACACCAACCA	7200
TGATAACTCA GGCAAGCAAT ATATGGAGCA GATTGCAATT GTTCGCCAGA CCTTGCAGAA	7260
TCGTGATTGG AATGAGAAAA TTA AAAAGAC GGTTCGAGGA TTTATGATTG AATCTTACCT	7320
AGCAGATGGT CGTCAAAACC AACCAGAGAT CTTTGGTTGC TCTATTACTG ACCCTTGCCT	7380
AGGTGGGAA AATACAGAGG CCTTGGTAGA AGAGATTAT GTTACCTTGA CAAAATAAGT	7440
GAAAAGGATG GAGTTGGGGA ATCTCAACTC CTTTGTATGA GAATGATAGT TGGACACGGA	7500
ATTGACATCG AAGAAATGGC TTCGATAGAA AGCGCAGTTA CACGACATGA AGGATTGCT	7560
AAGCGTGAC TGACCGCTCA GGAAATGGAG CGCTTCACCA GTCTCAAAGG ACGCAGGCAA	7620
ATAGAAATAT TAGCTGGTCG CTGGTCGGCT AAGGAGGCCT TTTCCAAGGC TATGGGAACG	7680
GGCATTAGCA AGCTCGGTTT TCAGGATTTG GAAGTCTTGA ACAATGAACG TGGGGCGCCT	7740
TATTTTAGTC AGGCACCATT TTCAGGAAAG ATTTGGCTGT CTATCAGCCA CACCGATCAG	7800
TTTGTGACAG CCAGTGTCAT TTTGGAGGAA AATCATGAAA GCTAGTCCAC ATAGACCAAC	7860
CAAGGCTCTG ATTCATCTGG GAGCTATTCG ACAAATATT CAGCAAATGG GGGCTCATAT	7920
CCCTCAAGGA ACGCTCAAGT TGGCTGTGGT TAAGGCCAAT GCTTATGGTC ATGGAGCTGT	7980
TGCCGTGCCC AAGGCAATTC AAGATGATGT TGATGGCTTT TGCCTTTCCA ATATCGATGA	8040

961

AGCCATTGAA CTCAGACAAG CTGGACTCAG CAAGCCAATC CTCATTTTAG GAGTTTCTGA	8100
AATCGAAGCT GTTGCTCTAG CTAAAGAATA TGACTTCACC TTGACAGTGG CTGGACTGGA	8160
GTGGATTCAA GCACTCTTAG ATAAGGAAGT GGACCTAACT GGATTGACAG TCCACCTCAA	8220
GATTGATTCA GGGATGGGAC GGATTGGTTT TAGAGAGGCA AGTGAGGTTG AGCAGGCTCA	8280
AGATTTGCTC CAACAACACG GTGTTTGTGT TGAAGGAATC TTTACCCACT TTGCTACTGC	8340
TGATGAGGAA TCAGATGACT ATTTTAATGC CCAGTTAGAA CGGTTTAAAA CTATTTTAGC	8400
TAGTATGAAG GAAGTTCCAG AGCTGGTTCA TGCTAGCAAT TCTGCAACGA CTCTTTGGCA	8460
TGTAGAGACT ATTTTCAATG CGGTTTCGTAT GGGAGATGCC ATGTATGGCC TCAATCCAAG	8520
TGGAGCGGTC TTGGATTTGC CTTATGATTT GATACCGGCC TTGACCTTGG AGTCTGCTCT	8580
GGTTCATGTC AAGACAGTTC CAGCTGGAGC TTGCATGGGC TATGGAGCAA CTTATCAAGC	8640
GGATAGCGAG CAAGTCATCG CGACCGTGCC AATCGGGTAT GCAGATGGAT GGACAAGAGA	8700
CATGCAAAAT TTCTCTGTCT TGGTAGATGG CCAAGCTTGC CCAATTGTCT GCAGGGTTTC	8760
GATGGACCAA ATCACTATTTC GATTGCCTAA GCTTTATCCG CTAGGAACCA AGGTAACCTT	8820
GATTGGCTCC AATGGGGATA AGGAAATCAC TGCAACTCAG GTAGCGACCT ACCGCGTAAC	8880
CATTAACATAT GAGGTGGTTT GCCTCCTCAG CGACCGTATT CCGAGAGAAT ATTATTAGAA	8940
AAGAAAGGAG TGGAGCATGA ATCTACATCA ACCCTTGCAAT GTCTTGCCCTG GTGTGGGACC	9000
AAAGTCAGCA GAAAAATACG CCAAACTAGG AATTGAAAAC TTGCAAGATC TCTTGCTCTA	9060
CTTTCCTTTC CGTTATGAAG ACTTCAAAAC CAAGCAGGTG CTGGAGCTGG AAGACGGTGA	9120
GAAGGCAGTT CTTTCTGGTC AGGTAGTGAC TCCTGCTAGT GTCCAGTATT ATGGTTTCAA	9180
GCGCAATCGC CTGCGTTTTA GTCTCAAGCA GGGAGAGGTC GTTTTTCGGG TGAATTTCTT	9240
TAACCAAGCCC TATCTGGCTG ATAAAATAGA GTTGGGAGCA ACCCTTGCTG TCTTTGGAAA	9300
ATGGGACCGC GCTAAGGCTA GTCTGACTGG GATGAAGGTT CTGGCTCAGG TAGAAGATGA	9360
CCTCCAGCCT GTCTATCGTC TGGCTCAGGG AATCAGTCAG GCCAGTCTGG TCAAGGTCAT	9420
CAAGACGGCT TTTGATCAGG GACTGGACCT CTTGATAGAA GAAAATCTGC CCCAGTCTTT	9480
ACTAGACAAA TACAACTCA TGTCCCGTTG TCAGGCAGTC CGTGCTATGC ATTTTCCAAA	9540
GTATTTGGCA GAATACAAGC AGGCTCTTCG CCGTATAAAG TTTGAGGAAC TCTTTTATTT	9600
CCAAATGCAG CTGCAGATGC TCAAGTCTGA AAATAGAGTT CAGGGAAGTG GTCTGGTTCT	9660
GAATTGGTCT CAGGAAAAAG TGACAGCAGT TAAAGTAAGT CTTCTTTTTC CCCTGACCCA	9720
AGCTCAGGAA AAGAGTTTGC AGGAAATTTT AACTGATATG AAGTCCGACC ACCACATGAA	9780

962

TCGTCTCCTA CAAGGGGATG TGGGGAGTGG AAAAACGGTA GTCGCTGGCT TGGCCATGTT	9840
TGCGGCAGTG ACAGCAGGTT ATCAGGCTGC CCTAATGGTA CCAACAGAAA TCCTCGCAGA	9900
GCAACACTTT GAGAGTTTAC AGAACCTTTT TCCCAATTG AAACTGGCTC TCTTGACAGG	9960
TTCTTGAAA GCTGCAGAAA AGAGAGAAGT CTTGGAGACC ATTGCCAAGG GTGAGGCTGA	10020
TTTGATTATA GGAAGCTCAG CTCTGATACA AGATGGGGTG GAGTATGCTC GTCTTGGTTT	10080
GATTATTATC GATGAGCAGC ACCGTTTTGG TGTAGGGCAA AGGCGTATTT TACGGGAAAA	10140
AGGTGACAAT CCAGATGTCC TCATGATGAC GCGGACTCCC ATTCACGGA CGCTTGCCAT	10200
CACAGCCTTT GGAGATATGG ATGTTTCCAT TATCGACCAG ATGCCAGCAG GTCGGAAGCC	10260
TATTGTGACG CGCTGGATCA AACATGAGCA ACTACCTCAG GTCTTGACTT GGTTAGAGGG	10320
GGAAATTCAA AAAGTTCCC AAGTCTATGT CATCTCTCCT TTGATTGAAG AATCAGAAGC	10380
TCTAGATTTG AAAAATGCCA TTGCCTTATC AGAGGAGTTG ACGACTCATT TTGCAGGCAA	10440
GGCAGAGGTG GCTCTTCTAC ATGGTAGGAT GAAGAGTGAC GAAAAAGACC AGATCATGCA	10500
GGATTTCAG GAGAGAAAAG CGGATATTCT GGTTCGACG ACGGTTATTG AGGTTGGGGT	10560
CAACGTTCCC AATGCGACTG TCATGATTAT CATGGATGCC GATCGCTTCG GTCTCAGTCA	10620
ACTTCACCAG CTTAGAGGTC GTGTCGGTCG GGGGGACAAG CAGTCCTACG CTGTTCTCGT	10680
TGCTAATCCC AAGACGGATT CTGGGAAAAG CCGCATGCGT ATCATGACAG AAACGACCAA	10740
TGGATTGTGC CTTGCGGAGG AAGATTTGAA AATGCGTGGT TCTGGTGAGA TTTTGGAAAC	10800
CAGACAGTCA GGAATTCAG AGTTCCAAGT GGCTGATATT ATCGAAGATT TTCCGATTTT	10860
AGAAGAAGCA AGAAAGGTTG CTAGCTACAT TAGTTCTATA GAAGCTTGGC AAGAAGATCC	10920
AGAGTGGCGC ATGATTGCCC TTCATCTGGA AAAGAAAGAA CATCTGGATT AAGCTTTCTC	10980
TAAGGAAAAC TTATACTCAA TGAAAATCAA AGAGCAAACT AGGAAGCTAA CCGCAGGTTG	11040
CTCAAAACAC TGTTTTGAGG TTGTGGATGA AACTGACGAA GTCAGCTCAA AACACCGTTT	11100
TGAGGTGGCA GATAGAACTG ACGAAGTCAG TAACATATAT ATACGGTAAG GCGACGCTGA	11160
CGTGGTTTGA AGAGATTTTC GAAGAGTATT AAGCTAGTTT TTAGGTTTGG CTCTTATACT	11220
AGAGTCATCA AAAAGAAACG AGGACTCTCA TATGACAGTA ACGATTAAAG TAAATTACCA	11280
AACCACTTTC CAAAAGAAGG AAGCAAAAAA CTAGTATAAA CAGAAGAGAG AGCGAAATGC	11340
TCTTTTTCG TTTCTAAAAC TACTTTCAGC CCATCATCCT AAAAGTAAAG AATCTAAATT	11400
CACTTCTAT TTACCTTCT TTCTTGCAAT GATTACATAG ATATGCTACA GTTGTGGTAA	11460
CGATTACAAA ATAAAAGGAG CATGCTATGA AAAATCCAGC TTTGCTAGAA GAAATTAAGA	11520
CCTATAGAGG AAGGGATGAG GTTCCGGAAG ACTTTGATGA TTTCTGGGAT GGGGAAGTGA	11580

963

AAAATGTTTC CACGCTTCCA TCCTACCACT TGGAGGAAAG AGATTTCAC ATTCCTCAAG	11640
TCAAGTGCTA TGAGTTAACA TTTGAAGGAA GCAAGGAAGG AAAGGTCTAT GCACGCATTG	11700
TTCTTCCAAA GAGTGAGGAG AAGGTCCCAT TAATCTTCCA TTTTCATGGT TATATGGGAC	11760
GTGGCTGGGA CTGGGCCGAC ATGCTGGGCT TCACCGTAGC TGGTTACGGT GTTGTTCCTA	11820
TGGATGTGCG GGGCCAGTCA GGTACTCAC AAGACGGCTT GCGTCTCCT TTAGGAAATA	11880
CCGTGAAGGG GCATATTATC CGTGGTGCTG TGGAAAGGTCG GGACCACCTC TTTTATAAGG	11940
ATGTTTATCT GGATATTAC CAGTTGGTCG AAATTGTTGC TAGTCTGTCT CAGGTTGATG	12000
AGAAGCGTCT TTCTAGCTAT GGTGCCTCAC AAGGAGGGGC TCTAGCTCTA GTTGCAGCAG	12060
CGCTCAATCC TCGAATTCAG AAAACAGTTG CCATTTATCC CTTCTTGTC GACTTCAGAC	12120
GGGTGATTGA GATTGGTAAT ACTAGCGAGG CTTACGACGA ACTTTCCGT TATTTCAAGT	12180
TTACGACCCC CTTCCATGAA ACAGAGGAGG AAATCATGGC GACCCTTGCC TATATCGATG	12240
TCAAAAATCT TGCCCATCGT ATCCAAGGTG AGGTTAAGAT GATTACGGGC TTGGACGACG	12300
ATGTTTGCTA TCCCATACC CAGTTTGCGA TTTATAATCG TCTGACCTGC GATAAAACCT	12360
ATCGCATCAT GCCTGAGTAT GCTCACGAAG CCATGAATGT ATTTGTCAAT GACCAAGTCT	12420
ACAACTGGCT CTGTGGAAGT GAGATTCCTT TAAATATCT AAAATAAGGA GTCGACTCTA	12480
AGCACAAAAT CTTAAAAATT ACAACACGC ATAGTATCAG GGGATTAAGA AAACTTTATA	12540
CTATGCGTTT TATCATGGAA ATATAGTAAA ATGAAATAAG AACAGGACAA ATCGATCAGG	12600
ACAGTCAAAAT CGATTTCTAA CAATGTTTGA GAAACAAATG TGTACTATTC TAGTGTCAT	12660
CTATTATATT TATAGAATTT TTTGTTGCTA GATTGTGCAA ATTGCTTAAA ATAATTTT	12720
TCAGAAAGCA AAAGCCGATA CCTATCGAGT AGGGTAGTTC TTGCTATCGT CAGGCTTGTC	12780
TGTAGGTGTT AATACTTTTC AAAAATCTCT TCAAACCACG TCAGCTTCGC CTTGC	12835

(2) INFORMATION FOR SEQ ID NO: 142:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5020 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 142:

GGGGATATGA AGAACAAAAG AATATTTAAA GACTTCCAAG CTTCAAAAAT GAGTTTAAAC	60
ATTTACACAA GCCCCTTGTT AGCCTTTGTT TTTGTCTTCA TAGGAGAGTT TGTGGCTTTT	120

964

ACTTTGTATG GTATTGGCTT GTTAGCTCTC ATCGGACTTG CTAGAAATTT TGGAGAGGCT	180
GGTCAAAATC TTGCAAGCTA CTTGCAGACC TTGCATCAGA GCTTGACGGA TAAAACAAGT	240
GACTTTCGTT TAATTTTAGG ATTACTGGCC TTTGGTTATT CTTAACACTG TGTTCAGATG	300
GACAAGAAAA GTTGAGAAAA GACCTATTCT AACCTTGGGA TTTTATAGAG AGAATTTCTT	360
CAGCAATCTT CTGAAAGGAT TTAGTCTAGG CCTGGCACTT TTTCTTCTGA CCTTGTTAGG	420
TTTAGTGGTC TTAGGTCAAT ATCGTTTGGG ATCCATTAC CTTGAATCCTT ATTCTCTTGC	480
CTTTGTCGTC TTTACTATCC CATTTTGGAT TTTACAGGGG ACAGCAGAAG AAGTGGTGGC	540
CCGTGCTTGG CTACTTCCTC AATTGGCCTC AAGAACCAAT CTAAACTAG CTATTCTTAT	600
ATCTAGCCTG TTCTTTACCC TGCTTCATAT GGGCAATTCT GGTCTCACCC CTCTATCTCT	660
AGTAAATCTC TTTTATTTCG GAGTTGCCAT GGCTCTTTAC CTTCTCAAAA CTGATACAGT	720
TTGGGGTGTT GCAGGTATTC ATGGTGCTTG GAATTTTGCT CAGGGTAATC TCTTTGGGAT	780
TTTAGTTAGT GGTCAACCGT CAGAACGTCT CTGATGACCT TTTTACCACA AGGCAATCAA	840
GATTGGCTAT CAGGTGGTTC TTTTGGCATA GAAGGTTCCA TTATGACAAG TCTGGTATTA	900
CTACTGCTGA TTGTCTATCT TGCTAATAAA TTAAAGAAAG AAAATGAAAG GATGTGACTT	960
CGGTCCGTCC TTTTCTTCGT GAAAATACTA TAAGTATGCT AAAATAGGAA TAGCACATGG	1020
AGAGAGGATT CTTATGATCA ATCACATTAC AGATAATCAA TTTAACTAG TATCAAAATA	1080
TCAACCATCA GGAGATCAAC CCCAAGCTAT CGAGCAGTTG GTGGATAACA TTGAGGGGGG	1140
AGAAAAAGCT CAGATTCTGA TGGGGGCGAC TGGAACAGGG AAGACCTATA CTATGAGTCA	1200
GGTCATTTCT AAAGTCAATA AACCAACTCT GGTATTGCCC CACAATAAAA CTCTGGCTGG	1260
TCAGCTCTAT GGGGAGTTTA AGGAATTTT CCCTGAAAT GCAGTTGAGT ATTTCTGATC	1320
CTACTATGAT TATTACCAGC CAGAGGCCCTA TGTCCTTCT AGCGATACCT ATATTGAGAA	1380
GGATAGTTCT GTCAATGACG AGATTGACAA GCTTCGCCAC TCAGCTACCT CAGCCCTTTT	1440
GGAGCGTAAT GATGTTATTG TCGTGGCCTC AGTCTCTGT ATCTATGGTT TGGGTTCCGC	1500
CAAGGAATAC GCTGATAGTG TCGTTAGTCT CCGTCCTGGT CTAGAGATTT CTCGTGATAA	1560
ACTCTTGAAT GACTTGGTCG ATATTCAGTT TGAACGTAAT GATATTGATT TCCAACGCGG	1620
AAGATTTGCG GTTCGTGGGG ATGTGGTAGA GATTTTCCCA GCTTCCCGAG ATGAACATGC	1680
CTTTCGAGTA GAATTTTGTG GAGACGAAAT TGACCGTATT CGTGAAGTTG AGGCTCTGAC	1740
AGGTCAGGTG TTGGGAGAAG TGGATCATTT AGCGATTTTC CCAGCGACAC ACTTTGTGAC	1800
CAATGACGAC CACATGGAAG TTGCCATTGC AAAGATTGAG GCCGAGTTGG AAGAACAATT	1860
AGCTGTCTTT GAAAAGGAAG GTAACTGCT TGAAGCCAG CGTTTGAAAC AGCGGACAGA	1920

965

GTATGATATC GAAATGTTGC GTGAGATGGG CTATACCAAT GGGGTTGAAA ATTATTCTCG	1980
CCACATGGAT GGACGGAGCG AAGGAGAGCC TCCTTATACG CTTCTCGACT TCTTCCCAGA	2040
TGATTTCTTG ATTATGATTG ACGAGAGTCA TATGACCATA GGGCAAATCA AGGGCATGTA	2100
CAATGGAGAC CGTTCGCGTA AAGAAATGCT GGTAAATTAT GGTTCGCTT TCCCGTCTGC	2160
TTTGGACAAT CGTCTCTCC GTCGGGAGGA GTTGAGAGT CACGTTTCATC AGATTGTTTA	2220
CGTTTCAGCG ACACCTGGTG ACTATGAAAA TGAACAGACC GAGACAGTGA TTGAGCAAAT	2280
CATTTCGTCCA ACGGGACTCT TGGATCCAGA GGTGGAAGTC CGTCCGACTA TGGGACAGAT	2340
TGATGACCTC TTGGGTGAAA TCAATGCCCG CGTTGAAAAA AATGAGCGTA CCTTTATCAC	2400
AACTTTGACC AAGAAAATGG CAGAGGATTT GACCGACTAC TTCAAGGAAA TGGGTATCAA	2460
GGTCAAGTAC ATGCACTCGG ATATCAAGAC CTTGGAACGG ACGGAGATTA TCCGTGACCT	2520
GCGCTTGGGT GTCCTTGATG TCTTGGTCGG AATTAACCTG CTCCTGAAG GAATTGACGT	2580
TCCTGAAGTG AGCCTCGTAG CTATTCTCGA TGGTGACAAG GAAGGTTTCC TTCGCAACGA	2640
ACGTGGACTC ATCCAGACCA TTGGACGTGC TGCACGTAAT AGCGAAGGTC ATGTTATCAT	2700
GTATGCGGAC ACGGTTACCC AGTCTATGCA ACGTGCTATC GATGAAACTG CCCGCCGTCG	2760
CAAAATCCAG ATGGCCTATA ATGAAGAACA TGGTATCGTT CCACAAACCA TCAAGAAAGA	2820
AATCCGTGAC TTGATTGCTG TGACCAAGGC AGTTGCTAAG GAAGAAGACA AGGAAGTCGA	2880
TATCAATAGC CTCAACAAAC AAGAGCGCAA AGAACTAGTC AAAAAGCTTG AGAAACAAAT	2940
GCAAGAAGCA GTTGAAGTGC TTGACTTTGA ACTAGCAGCT CAGATTCGTG ATATGATGCT	3000
GGAAGTCAAG GCCTTGATT AGGGAATAG TATGATTTAT TTAAGAAAGT TAAAGAAAGA	3060
AGATTTGATG TCTTTATGGG AAATGGCTTA TTCACAGCTT AATCCAGTTT GGAAACAGTA	3120
TGATGCTCCC TATTATGATG ATTATCAGTA TTTTCAAAT TTAAAGAAT TCGAACTACA	3180
AAAATCAGAA TCCATTTTAA GCAACTCAAA TCGCCTTGGT ATTTTGTGTTG ATGATAAACT	3240
AGTTGGGACT GTTTCGCGTT ATTGGGTATG TAAAGAAACA AGATGGATGG AATTGGGAAT	3300
TGGTATTTAT GATAAAAAAT TCTGGAACAC TGGTATTGGG AAAGTTGCTA TGTGACAGTG	3360
GATAGATAGG ACGTTTCAGG ATTACTTGA GTTGGAGCAT CTGGGTTTGA CAACTTGGTC	3420
AGGAAATATT GGTATGATGA AACTTGCTGA AAAATTAAGA ATGAAAAAAG AAGCTCATAT	3480
TCCAAAAGTT CGTTATTATC AAGGTAATA TTTTGACAGT ATTAATATG GTATTTTGAG	3540
AGAAGACTGG GAGAAAATAA ATGACGGTTA TTATCAAATC AATGGAACT CCTGAAGAGA	3600
TAGAAGGTAA ATCCTTCGTT CACTGGCAAA CGTGGAGAGA GGCTTATGAT GACCTTTTGC	3660

966

CTGCGGAATT TCAGGAGACA ATGACATTAG AAAGATGTCG ACTCTTTAGT CAAAAGTATC	3720
CAGAAAATAC ATTGATTGCG ATGGATGGTG TGAAGATAGT TGGTTTTATA AGTTATGGCA	3780
ACTGTCGTGA TGAGACTATT CAAGCTGGTG AAATTATTGC TTTATATGTT TTTAAAGACT	3840
ATTATGGAAA AGGAATCGCA CAAAAGTTAG TGAAGCAGC TTTGACTGAT CTTAATCATT	3900
TTTCTGAAAT TTTCTTATGG GTATTGAAAG ATAACAAGCG CGCCATTGCT TTCTATCAAA	3960
AAATGGGTTT TACTTTTGAT GGACAAGAAA AAATACTTGA ACTTGGAAG CCTATAAAGG	4020
AAAAACGGAT GGTATTCTAT TCTAAATAAT TCTCAAAAGT AAAAGCTAAT ATGGTACCAA	4080
GTCTGAAAT TTAATAAATT AGAAAGCGAG TAAATTTATG TCCCGTTCCC AATTAACAAT	4140
TTTAACAAAT ATCTGTCTGA TTGAAGACCT CGAAACTCAG CGCGTGGTGA TGCAGTATCG	4200
CGCCCTGAA AACAATCGCT GGTCTGGTTA TGCCTTTCCT GGAGTCATG TAGAAAATGA	4260
TGAGGCTTTT GCGGAGTCTG TCATTCGTGA AATCTACGAA GAAACAGGGT TGACTATCCA	4320
AAATCCTCAA CTTGTCGGCA TTAATAATTG GCCACTAGAT ACAGGTGGGC GCTATATTGT	4380
CATTGTGTAT AAGGCGACTG AGTTCTCTGG TACCCTTCAA TCTTCAGAAG AGGGAGAAGT	4440
TTCTTGGGTG CAAAAGACC AGATTCCAAA CTTAAATCTG GCCTATGATA TGCTACCATT	4500
GATGGAATG ATGGAAGCTC CCGACAAGTC AGAGTTTTTC TACCCTCGCC GTACAGAAGA	4560
CGATTGGGAA AAGAAAATCT TCTAGTCTTT TACTAAATAA CCTAGCTGAT CCAAGGCCTC	4620
CTCGATATAG TGGAGGTCTT GTTGTGTCTC GGCTTCAACT AGGTGATAAT GAATACCATC	4680
TGTTAACTCA GAAATTGGCT TAAAGTCAGA ACGTTCAACT TGTCTAGAA AATGTTGCAC	4740
GTGCGGCGCA CAGGTCAGTT TTAGTAAGGT TTCAATCTCT CCATAAACAG GATGATCAAT	4800
CAAGATATTT TGAACGCGAC CACCATTATC TACGATAGCA AGTAATTCTC GTCCAATTTC	4860
TTCAACTTCA TGCTTGACCT TAAATAATTT GTGATGATAA GTATTTGCAT TAGCATCTTT	4920
ATAGATATAA CCACGATTGG TAGATAGAAT TGGAGATCCA TCAGCTCTTA AAATTGCAAT	4980
ATCTTGAACA ATAACCTGTC GAGTGACATG AAAGTGCTCA	5020

(2) INFORMATION FOR SEQ ID NO: 143:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4965 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 143:

AAAAAGTGGC AATCCATTGA TTGGCCACTT CATTTAGAGA ATTATCGTCT CGCCCTTGAA	60
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967

GAAGAAGGTC GTGTAGTACT TGAGTTACTG CTATCGCTAG AACTACTACT TGAAGTCTG	120
GAGCTGGATG GAGTTGGTAG ACTCCCCACA ATACTAGACC AAGCATTCTG ATAATCCGA	180
TCACCTCCGC CAATAGCAAA GCGATAACTT GTCGCTGGCG CTCCTGACTT ATTAGCCAA	240
TAGCTGGTAA CAGTCGAACC TGTGACCTCT ACTTCTTTTC CTTCAACAGA AACCTTCTCT	300
GGTTTTTGAC CTGTTGATTT CAAGACTTCC GATTTCACTA CACTAGGATC TAAAGCAAAG	360
CGCTCGTTCC CCCAAATGCT TGGGGAAGCT TGCTGAATCG CATTACCAG ATGAGCCATG	420
TAATTAGAGT TATTAGAATA ACCTGCTCTA CGTGACAATG AATGATTATC ATCATGCCCA	480
ATCCAGCCAC CTAGGGTTAA TCTAGGTGTC GAAAGCATGA GCCACATATT TTCGTCTTGG	540
TTGGTTGTAC CAGTCTTCCC AATCCAATCT GCATTAGCCA GAGTAGGATT TAAAGAAGTC	600
AGGTTAGACT TGAAGGTTGT TGTACACGA GAGGATAGAA CTTCTCGTAG CAATCCCTGC	660
ATAATCGTCG CAGTAGCTTT TGAATAGACT TGAACCGGTT TATCCTGATA CTCATACACC	720
ACTCTACCAT CTGCTGCTTC AATCTTTGAA ATCACATGCT TCTGATGATA AACTCCATTA	780
TTAGCTAAGG TCTGATAGCC ATTGGTATGC TGGGCAACTG TGACTTCAAT ACCACCACCC	840
ATTGGCAAGC TCTCAATACC GTACTCAGGA ATCTCGTAAC CCATCTTTTC CATATAACCC	900
TTGACATCAA CACCCTTTTC ACGGAGCATA CGATAGGTCC AGTAAGCAGG GATATTCCAT	960
GAATAGTTCA GAGCTTCTCC CAAGGTCATC ATTCCTGTTC CCTTGCTATT AGCATACATA	1020
ATCGGATTGC CATTAGCAAA GTTTGTTGGA TAGTTAGATA GAATCGTTTC ACTTCCCATC	1080
AAGCCCTGGT CAATAGCAAT ACCGTAGGCC AGCAAGGGCT TGGTAGTAGA AGCTGGCGAA	1140
CGTTTGGTAT CAAAGGCATG ATTATTTTGA TTTTCTTGAT AATTACGACC ACCTACAAAG	1200
CCTAGAATAG CACCTGTTTG GTTATCCATC AAGACATTCC CTACTTCTAC ACGACCTGTT	1260
CCATCGTCTA AAAGATAGCC ATAATCAGCA ACCGCACTTT GCATGGCAGA ATGAATTTTC	1320
TGATCTATGG TAGTAGTAAT CTTATAACCA CCATTTTCAA TTTCCTTGGC TGCCAAATCT	1380
CGATAAACT TCTGAGTTGC CTCATTTTTC AACTCCTTAG CGGAGACATT GTCTCTCTGA	1440
GCTAGATAGT CATACATACG TTCTTGAGCT TCTGCCAAAG TTGTAAAGTA TAAATAGTCT	1500
CGTGAAATTC CTGTAACCGT GCCCGATGGT AAAAAGTCCT GTTTAAGGTC ATAATCCTTG	1560
TACTGAGAAT ACTCGTCTTT GCTTAATGCA CCTGTACGAT ACATACTGTA AAGAACTGCC	1620
TTAGCCCGTC TTAAGCCAAT TTCTAGGTCT TCATCACTCT TCAACTCCCC AGTATTTTCA	1680
TAAGGAGAGT AAGTAATGGG ACTCTGTGGA AGTCCTGCTA AAAATGCTGC TTGAGGAACA	1740
GTCAACTGAC TGGCATCTAC ACCGAAAATT CCCTCAGCTG CTGCGGAGC CCCTGCAATA	1800

968

TTCTGTCCCT TATTATTTTCG GCCAAAGGGA GCCACATTGA GATAGGTCGT TAAAATCTCA	1860
TCTTTATTCA TGGCGCGTTC CAAGGCAAGA GCATCCACAA TCTCTGCCGC CTTACGAGCC	1920
AAGGTCGGCG CATCCCCAAC CACCTGCTGT TTAATTAGTT GCTGGGTCAA GGTGAACCC	1980
CCACTAGAGG AACCCAAACC TACAAATTTT CCCAAGGTCG CACGAATCAC CGCCTTGGGT	2040
ACTACACCCT TATGTTCTTT AAAGTGTTC TCTTCTGTCG CAATGATAGC CTTCTTCAGA	2100
TTTTCCGAAA TTTGCTCAGA TGAGATAGAA GTGCGCAACA AATCACTCTC TATGGAAGCA	2160
ATCACCGTCC CGTCCGAATA GGTAACTCTT GAAATAGAAG AGATGTCCTT GACCTGATTC	2220
ACCAATTCTT CTGCTGAGG CACCCGAACC TTGTCAAATA AGGCCACTCC GTATCCCAA	2280
GCAATCCCAG CTCCCAACAT TCCTCCTAGA AAACCGAGTA CAAAGAGTAA GTTAAATAAG	2340
GCTTTTATAC TCAGTAAAAT AGCTGGGAAA ATGACTGACT TATCTAAGGT TTTAGATTTT	2400
TTGGTACTTG AACCTTTCTT GCCAGGTCTA GCTGATTTT TATTTTTTTG TTTTGTCTGG	2460
AAAAATCCA GCATTTTTCG TTTTAATTCA TTTAATTGAT TTTGCATGGA TTTCTCTACT	2520
TTATCTATTA TACCACAAA GGGAAATTTT CAATAAATA GCCACTTCT TCCCTATTCT	2580
GCTAGGCTAT TGCCCAAGTT TGTGATACAA TAGGTAGAAA CAATAATTTT AAAAAGGAGA	2640
AAAAACACAT GCACATTTTT GATGAGCTAA AAGAGCGTGG TTTGATATTT CAAACGACTG	2700
ATGAAGAAGC TTTGCGTAAA GCCCTAGAAG AAGGTCAAGT TTCTTATTAT ACTGGCTACG	2760
ATCCAAGTGC TGACAGCCTT CACCTAGGCC ACCTTGTCGC AATCTTGACA AGTCGTCGCT	2820
TGCAACTAGC AGGTACAAA CCTTATGCGC TCGTTGGCGG TGCTACAGGT CTCATCGGAG	2880
ATCCGTCCTT CAAAGATGCT GAACGTAGTC TCCAAACAAA AGACACAGTA GATGGCTGGG	2940
TCAAGTCTAT CCAAGGACAA CTTTCTCGTT TTCTTGACTT TGAAAATGGC GAAAACAAGG	3000
CTGTCACTGGT CAACAACACT GACTGGTTTG GCAGCATCAG CTTCAATTGAC TTCTCCGTG	3060
ATATTGGAAA ATACTTCACG GTCAACTACA TGATGAGTAA GGAATCTGTT AAAAAACGGA	3120
TCGAAACAGG AATTTCTTAC ACTGAGTTTC CTTACCAAAT CATGCAAGGG TATGACTTCT	3180
TCGTCCTTAA CCAAGACCAT AATGTCACTC TTCAAATCGG TGGTTCTGAC CAGTGGGGAA	3240
ATATGACAGC TGGTACCGAA TTGCTTCGTC GTAAGGCGGA CAAGACTGGT CACGTTATCA	3300
CTGTTCCACT AATCACAGAT GCAACTGGTA AGAAATTTGG TAAATCAGAA GGAAATGCCG	3360
TCTGGCTCAA TCCCGAAAAG ACTTCTCCAT ACGAAATGTA CCAATTCTGG ATGAACGTGA	3420
TGGACGCTGA CGCTGTTCCG TTCTTGAAAA TCTTTACTTT CTTGTCACTT GATGAGATTG	3480
AAGATATTCG TAAACAATTT GAAGCAGCGC CACACGAACG CTTGGCTCAA AAAGTCTTGG	3540
CTCGTGAAGT TGTTCACTT GTTCACGGAG AAGAAGCCTA CAAAGAAGCA CTTAACATCA	3600

969

CTGAGCAACT CTTTGCAGGA AACATCAAAA ACCTTTCGTGT CAAAGAGCTC AAACAAGGAC	3660
TTCGTGGTGT GCCCAACTAC CAAGTACAGG CAGACGAAAA CAACAATATC GTGGAAGTGC	3720
TCGTCTCATC TGGTATAGTT AACTCAAAAC GCCAAGCCCG TGAAGACGTC CAAAACGGAG	3780
CCATCTACGT AAACGGCGAC CGCATCCAAG AGCTTGACTA TGTCTTGAGT GACGCTGATA	3840
AGTTAGAGAA TGAAGTACT GTTATCCGTC GTGGGAAGAA AAAATACTTT GTATTGACTT	3900
ACTAAACTAT TCAACATTTA TCTATAAACA AAGGAGTTAA CCTCGAGAAA GGTAAGTCTT	3960
TTTTGCTGTT AATAACTCTC ATCTATCTAT TTTTAATAGA CAGGCTACGC AGGACAATGC	4020
GCAAGGTGTG TAGATTATGT AAGATAGAGA GATTGAAGG ACTGAACCAA TTAATAAGC	4080
CAAAGCCAAAT CAAACTACTA TTTACGACAA CGGTATCCTG AATATTTTTC TTGATGAGTG	4140
TTTGCAAAGA TGATGATAAC GAATCCAACCT CTTGGAAGAA ATCCAAACGA TTATCTAACA	4200
ATAAGATATC ACTCATCTGC TTAGAAATAT CTGCACTCTC ATTCATCACC ACACCGATAT	4260
CTGATAGAGT TAAAGCCGCT GAGTCATTCA ATCCATCTCC AACCATCAAA ATAGTGTGAC	4320
CTGCTTCTCG CAGTTTCTCT ACTAACTCAA ATTTCCCATC AGGTTTCAAG TCTGTATAGA	4380
CCTGATCAAA GGGCAAATCT TTGACTAATT CCTCTGTCTT AATCAAGGTG TCTCCTGTGTG	4440
CCAGAATCAA TTTTTTCCCC TGTGCCTTAA GTTTATCCAA GGCTGTTTTT GCTTCTTTTC	4500
TCAAAGGAGT ATGAATGCAG AACATTCCAA TCAATTCATT TTGATAAGCC AAGAATAAGA	4560
GATTGTAGTG ACTCTTGAC TCTTCAATTA AAGCATTTTG TTCTGAAGTG ATATGAATCT	4620
GCTCATCCTG CATCAAGACA TAATTCCCAA TAAGAACTGG TTGGCCATCT ATATGAGATT	4680
TGATCCCCTT GCTTGCGATA TATTGGAGTT TCCCATGCAT TTCCTCATGT TCAATTCCTT	4740
CTATCTCAGC TTGCTTGACG ATGGCATTAG CAATAGGATG ATAAATGTGT TCCTCAAGAC	4800
AGGCACTGAT TCTGAGAATA TCTTCCTCAC TATAGTCTCC AAAAGGTAAC ACCTTTTCAA	4860
CTATAGGATA ACTAGTTGTG ATTGTTCTCG TCTTATCAAA CAAGAAAGTA TCAACTTCCA	4920
GATATTTCTC CCTGTTGTGG CCTCTGGCTG TCATCTCTGT GCTGG	4965

(2) INFORMATION FOR SEQ ID NO: 144:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3232 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 144:

970

CAGGGGCGTA TTACGTGACA ATTCAATGTA GGCTGTCGCT ACTTGCGCCA AAACAAGGAT	60
TCGATAATGT CGGATGATAC TAACGATTAA ACCGAGCAGA AAGGATCCCA AAATTCCCCA	120
AACTGCAATA TGCAAGGTCA GAAAGAATGC CTTTGTATAT AGTGGTAGAT ATTGTTCAAC	180
AATGGATCAA TCCAAAAATA GAACCTCCCA TCTAGAAATA ATACAGTTAT TGTAGCACTT	240
AAAATCTTCT TTGGATAATA TCTATTTTTT ATTGCCGTTA TAAGGATTTT TATCATAGAC	300
ATAAAATTTC TGAAATTTC AAACAAAATA TTTTAAAGT TTTGAAAAAG AGTTAAGATA	360
TTTTTGTAAT ACACAAAGTA AACGTTACT TATTAAGGAG GACATTTTAT GTCATACAAA	420
ACAAGCAATG CAGAAGGTCA TGTAAGTTTC ATCAATACCT ATGATTGGGA GCCAATGGCG	480
CAACAAGTTA TTCCTAAAGC AGCATTGGC TATATCGCTA GTGGGCGGG AGATACTTTC	540
ACTTCTTCC AGTGATTTTA GCGTCAGGTT CTTTGTAGTT TTTAAAGATT ATCCGTGAAT	600
TTCTTGCTTA TTTATGATAA AATGGGAGTG TCGCAAAAAA TGACTCATCG TATTCAATTT	660
TGAGTAAAC TAGGAGGATC CCATGTCTAC AGAACATATG GAAGAACTAA ATGACCAGCA	720
GATCGTTCGC CGTGAACAAA TGGCTGCGCT CCGCGAACAA GGAATCGATC CTTTCGGAAA	780
ACGTTTGA CGTACTGCAA ATTCACAAGA ATTAAGAGT AAATATGCCA ACCTCGATAA	840
AGAACAATTA CACGATAAAA ACGAACAGC TACTATCGCA GGACGCTGA TAACCAAACG	900
TGGTAAAGGA AAAGTTGGTT TTGCCACCT TCAAGACCGC GAAGGCCAGA TTCAGATCTA	960
CGTTCGTAAG GATGCTGTCG GTGAAGAAAA CTACGAAATC TTCAAAAAAG CAGACCTTGG	1020
TGACTTCCTT GGTGTCGAAG GTGAAGTGAT GCGTACGGAT ATGGGAGAAC TCTCTATCAA	1080
GGCAACCCAC ATCACAACCT TGTCTAAGGC TCTTCGTCTT CTTCTGAGA AATTCCATGG	1140
TTTGACAGAC GTTGAAACAA TTTACCGTAA ACGTTACCTT GACTTGATTT CTAATCGTGA	1200
AAGCTTTGAA CGCTTTGTCA CTCGTTCAAA AATCATCTCT GAAATCCGTC GTTACCTTGA	1260
CCAAAAAGGA TTCCTTGAAG TGGAAACACC TGTTCTTCAT AATGAAGCCG GTGGTGCTGC	1320
TGCCCGTCCA TTTATACCCC ACCACAATGC CAAAACATT GACATGGTGC TTCGTATCGC	1380
GACTGAGCTT CACTTAAAAA GCCTTATCGT GGGTGGTATG GAACGTGTCT ATGAAATTGG	1440
CCGTATCTTC CGTAACGAAG GAATGGACGC TACTCATAAC CCTGAGTTCA CTTCTATCCA	1500
AGTTTACCAA GCTTATGCAG ACTTCCAAGA CATCATGGAC TTGACTGAAG GCATTATCCA	1560
ACACGCTGCT AAATCAGTCA AAGGTGATGG CCCAGTCAAC TACCAAGGTA CTGAAATCAA	1620
GATTAACGAA CCATTAAAGC GTGTTTATAT GGTGGATGCT ATCAGAGAAA TTAGTGGTGT	1680
CGATTTCTGG CAAGACATGA CTTTGGAAGA AGCTAAAGCT ATCGCTGCTG AGAAGAAAGT	1740
TCCAGTTGAG AAACACTACA CTGAGGTTGG TCACATCATC AATGCCTTCT TTGAAGAGTT	1800

971

TGTTGAAGAA ACTTTAATCC AACCAACCTT TGTCTATGGA CATCCAGTAG CTGTATCTCC	1860
ACTCGCTAAG AAAAATCCTG AAGACCAACG CTTTACTGAC CGTTTCGAGC TCTTTATCAT	1920
GACTAAGGAG TACGGTAATG CCTTTACTGA GTTGAACGAC CCAATCGACC AACTTAGCCG	1980
TTTTGAAGCC CAAGCTAAAG CCAAGAAGT TGGTGATGAT GAAGCGACAG GAATCGACTA	2040
TGACTACATT GAAGCTCTTG AATACGGTAT GCCACCAACA GGTGGTTTGG GAATCGGTAT	2100
CGACCGTCTC TGCATGCTCC TCACTGATAC AACAACTATC CGTGATGTAT TGCTCTTCCC	2160
AACAATGAAA TAAATTCTTA TCCTCTGGGT CTTATCAGAG GATTTTTTGA TTCAAAAAGA	2220
GACTGAATTT AAGGAGAAAA TGAAGTGTAG TATATTGAAA TTGAAATAGT ACACTTTGAT	2280
TTCTAAGACA TTGTTAGAAA TTGGTTTAAA TTCCCTAAGC AATTTGTGCA TGTTTTATTT	2340
CATTTTACGA TAGTACGCTG AAACTTTCA AAAAGTACTA GAAATTGACT TGGATTCCCC	2400
AATTGATTTG TTCAGATTCA CTATAAATAA AAAATTAATA AGTGGGATAG GAAGTTAGCG	2460
TCAACTAGGA TAGTATCTTG CTTAAACAGT ATATATGGGA TTGATATAAG TCCATAGGTC	2520
CTATTAGAGG ATGTTCTGGT GTCTTATTCA CTTGTTTTTT ATAGTATTAG TAGATAGAAT	2580
CAGCAAATAA AAACCCAAAT CATTCAATACC TCTCTCAACT AGATGTAAGT TACAAAACCC	2640
CTGACCTCAT GAGCCACTTT CTTCTCCTC ATGAGGTCAG TTTTACTTTC TGCTGTTCCA	2700
GTATCGTTTT TCCTCGCTAG ATTTCTCTCA AAGGGCAGAC TCCTCCCTTG GTGCGTCACA	2760
CGATTTTTTC ATCTCGACTG TTCTTTAATG CATCATTAAC GACGCTTTTC TTCTAGGTGG	2820
TTCATAAGGA ACAGGAAGAT TCAGGTTGAC TTTTCTAATC CTAGAATAAA GTGCTGAAAA	2880
CAATTCGGAA TAGGCATAGA GACTAGACAA TTTGAGGAGC TGCTTGCCTC CTGTTCGAAC	2940
ACATTTTCCC ACCACGTGAA GAAAAAGATG GCGGAAGCGT TTGATTGTTA AAGTTTGGAA	3000
GTCACCTCCA GCTAGATGTT TGAGAAAAAG ATAGAGATTG TAGGCGATAC AGCTCATCAT	3060
CATACGAACT TCGTTTTTGA TTAAGGTTGA ACTATCCGTT TTATCGCCAA AAAATCCCTC	3120
CTTCATCTCC TTGATGAAAT TCTCGGCTTG ACCACGTCCA CGATAAAGCT GAACTGGTC	3180
TTGGCTTGTT CCACTCGTCA TATTTGTAAC GAGAGAAATA ACATCGTAGA AC	3232

(2) INFORMATION FOR SEQ ID NO: 145:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10711 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

972

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 145:

CCGGAGAAAA TGATGAAAAG TTCAAAATA TTTGCCCTTG CGGGCGTGAC ATTATTGGCG	60
GCGACTACTT TAGCTGCATG CTCTGGATCA GGTTCAGCA CTAAGGTGA GAAGACATTC	120
TCATACATTT ATGAGACAGA CCCTGATAAC CTCAACTATT TGACAACTGC TAAGGCTGCG	180
ACACAAATAT TACCAGTAAC GTGGTTGATG GTTTGCTAGA AAATGATCGC TACGGGAACT	240
TTGTGCCGTC TATGGCTGAG GATTGGTCTG TATCCAAGGA TGGATTGACT TACACTTATA	300
CTATCCGTAA GGATGCAAAA TGGTATACTT CTGAAGGTGA AGAATACGCG GCAGTCAAAG	360
CTCAAGACTT TGTAACAGGA TTAATAATG CTGCTGATAA AAAATCAGAT GCTCTTTACC	420
TTGTTCAGAA ATCAATCAAA GGGTTGGATG CCTATGTAAA AGGGGAAATC AAAGATTTCT	480
CACAAGTAGG AATTAAGGCT CTGGATGAAC AGACAGTTCA GTAACTTTG AACAAACCAG	540
AAAGCTTCTG GAATTTCTAG ACAACCATGG GTGTGCTTGC GCCAGTTAAT GAAGAGTTTT	600
TGAATTCAAA AGGAGATGAT TTTGCCAAAAG CTACGGATCC AAGTAGTCTC TTGTATAACG	660
GTCTTATTT GTTGAAATCC ATTTGTGACCA AATCCTCTGT TGAATTTGCG AAAAATCCGA	720
ACTACTGGGA TAAGGACAA GTGCATGTTG ACAAGTTAA ATTGTCATTC TGGGATGGTC	780
AAGATACCAG CAAACCTGCA GAAAACTTTA AAGATGGTAG CCTTACAGCA GCTCGTCTCT	840
ATCCAACAAG TGCAAGTTTC GCAGAACTTG AGAAGAGTAT GAAGGACAA ATTTGTCTATA	900
CTCAACAAGA CTCTATTACG TATCTAGTTG GTACAAATAT TGACCGTCAG TCCTATAAAT	960
ACACATCTAA GACCAGCGAC GAACAAAAGG CATCGACTAA AAAGGCTCTC TTAAACAAGG	1020
ATTTCCGTCG GGCTATTGCC TTTGGATTGG ACCGTACAGC CTATGCCTCT CAGTTGAATG	1080
GACAAACTGG AGCAAGTAAA ATCTTGCCTA ATCTCTTTGT GCCACCAACA TTTGTTCAAG	1140
CAGATGGTAA AAATTTGGC GATATGGTCA AAGAGAAAT GGTCACTTAT GGGGATGAAT	1200
GGAAGGATGT TAATCTTGCA GATTCTCAGG ATGGTCTTTA CAATCCAGAA AAAGCCAAGG	1260
CTGAATTTGC TAAAGCTAAA TCAGCCTTAC AAGCAGAAGG AGTCCAATTC CCAATTCATT	1320
TGGATATGCC AGTTGACCAA ACAGCAACTA CAAAAGTTCA GCGCGTCCAA TCTATGAAAC	1380
AATCCTTGGG AGCAACTTTA GGAGCTGATA ATGTCATTAT TGATATTCAA CAACTACAAA	1440
AAGACGAAGT AAACAATATT ACATATTTTG CTGAAAATGC TGCTGGCGAA GACTGGGATT	1500
TATCAGATAA TGTCGGTTGG GGTCCAGACT TTGCCGATCC ATCAACCTAC CTTGATATTA	1560
TCAAACCTTC TGTAGGAGAA AGTACTAAAA CATATTTAGG GTTTGACTCA GGGGAAGATA	1620
ATGTAGCTGC TAAAAAGTA GGTCTATATG ACTACGAAAA ATTGGTTACT GAGGCTGGTG	1680
ATGAGACTAC AGATGTTGCT AAACGCTATG ATAAATACGC TGCAGCCCAA GCTTGGTTGA	1740

973

CAGATAGTGC TTTGATTATT CCAACTACAT CTCGTACAGG GCGTCCAATC TTGTCTAAGA	1800
TGGTACCATT TACAATACCA TTTGCATTGT CAGGAAATAA AGGTACAAGT GAACCAGTCT	1860
TGTATAAATA CTTGGAACCT CAAGACAAGG CAGTCACTGT AGATGAATAC CAAAAAGCTC	1920
AGGAAAAATG GATGAAAGAA AAAGAAGAGT CTAATAAAAA GGCTCAAGAA GATCTCGCAA	1980
AACATGTGAA ATAACGTGTG CAAAATATAA GAAAGGATTT AGTATTTCCC TTGAATGCTG	2040
AATCCTTTTT TACATTTGTA AAGAAAGATT CTAAATGTA CGGACCCCA AAAGTTGGAG	2100
CCTCTTTTTG TCAGAATAGA GAAAATTTTT GTTAATTTTA CTTGTTTCCT ATTGCTTTCT	2160
CAGCTATTAT TTGTTATATT AAAAGTATAA TTATTTTTTA TTTATCAGAG TTAAGCATTG	2220
CACCTTCAGA GGAAGGAGTA TTTTTTAAAA AGAAATGTA AACGTTTGCT CAAAAATGAA	2280
AGGATTTAGA AGTTTATGAA TAAAGGATTA TTTGAAAAAC GTTGTAATA TAGTATTCGG	2340
AAATTTTCAT TAGGTGTTGC TTCTGTTATG ATTGGAGCTG CATTCTTTGG GACAAGTCCG	2400
GTCTCTGCAG ATAGCGTGCA GTCTGGTTCC ACGGCGAACT TACCAGCTGA TTTAGTACT	2460
GCTCTTGCAA CAGCAAAAGA GAATGATGGG CGTGATTTTG AAGCGCCTAA GGTGGGAGAA	2520
GACCAAGGTT CTCCAGAAGT TACAGATGGA CCTAAGACAG AAGAAGAACT ATTAGCACTT	2580
GAAAAAGAAA AACCGGCTGA AGAAAAACCA AAAGAGGATA AACCTGCAGC TGCTAAACCT	2640
GAAACACCTA AGACGGTAAC CCCTGAATGG CAAACGGTAG CGAATAAAGA GCAACAGGGA	2700
ACAGTCACTA TCCGAGAAGA AAAAGGTGTC CGCTACAACC AACTATCCTC AACTGCTCAA	2760
AATGATAACG CAGGCAAACC AGCCCTGTTT GAAAAGAAGG GCTTGACCGT TGATGCCAAT	2820
GGAAATGCAA CTGTTGATTT AACCTTCAAA GATGATTCTG AAAAGGGCAA ATCACGCTTT	2880
GGTGTCTTTT TGAAATTTAA AGATACCAAG AATAATGTTT TTGTCGGTTA TGACAAGGAT	2940
GGCTGTTCT GGGAGTATAA ATCTCCAACA ACTAGCACTT GGTATAGAGG TAGTCGTGTT	3000
GCTGCTCTG AACAGGATC AACAAACCGT CTCTCTATCA CTCTCAAGTC AGACGGTCAG	3060
CTAAATGCCA GCAATAATGA TGTCAATCTC TTTGACACAG TGACTCTACC AGCTGCGGTC	3120
AATGACCATC TTAATAATGA GAAGAAGATT CTTCTCAAGG CGGGCTCTTA TGACGATGAG	3180
CGAACAGTTG TTAGCGTTAA AACGGATAAC CAAGAGGGGG TAAAAACAGA GGATACCCCT	3240
GCTGAAAAAG AAACAGGTCC TGAAGTTGAT GATAGCAAGG TGACTTATGA CACGATTGAG	3300
TCTAAGGTCC TCAAAGCAGT GATTGACCAA GCCTTCCCTC GTGTCAAGGA ATACAGCTTG	3360
AACGGGCATA CTTTGCCAGG ACAGGTGCAA CAGTTCAACC AAGTCTTTAT CAATAACCAC	3420
CGAATCACCC CTGAAGTCAC TTATAAGAAA ATCAATGAGA CAACAGCAGA GTACTTGATG	3480

974

AAGCTTCGCG	ATGATGCTCA	CTTAATCAAT	GCGGAAATGA	CAGTACGCTT	GCAAGTTGTA	3540
GACAATCAAT	TGCACCTTGA	TGTGACTAAG	ATTGTCAACC	ACAATCAAGT	CACTCCAGGT	3600
CAAAAGATTG	ATGACGAAAG	CAAACACTCT	TCTTCTATTA	GTTTCCTCGG	CAATGCTTTA	3660
GTCTCTGTTT	CTAGTAATCA	AACTGGTGCT	AAGTTTGATG	GGGCAACCAT	GTCAAACAAT	3720
ACGCATGTCA	GCGGAGATGA	TCATATCGAT	GTAACCAATC	CAATGAAGGA	TTTGGCTAAG	3780
GGTTACATGT	ATGGATTGTG	TTCTACAGAT	AAGCTTGCTG	CTGGTGTTTG	GAGTAACTCT	3840
CAAAACAGCT	ATGGTGTTGG	TTCGAATGAC	TGGACTCGTT	TGACAGCTTA	TAAAGAAACA	3900
GTGCGAAATG	CCAACTATGT	AGGAATCCAC	AGCTCTGAAT	GGCAATGGGA	AAAAGCTTAT	3960
AAGGGCATTG	TTTTCCCAAG	ATACACGAAG	GAACCTCCAA	GTGCTAAGGT	TGTTATCACT	4020
GAAGATGCCA	ATGCAGACAA	GAACGTTGAT	TGGCAAGATG	GTGCCATTGC	TTATCGTAGC	4080
ATTATGAACA	ATCCTCAAGG	TTGGGAAAAA	GTTAAGGATA	TCACAGCTTA	CCGTATCGCG	4140
ATGAACTTTG	GTTCTCAAGC	ACAAAACCCA	TTCCTTATGA	CCTTGGATGG	TATCAAGAAA	4200
ATCAATCTCC	ATACAGATGG	TCTTGGGCAA	GGTGTCTCTC	TTAAAGGATA	TGGTAGCGAA	4260
GGCCATGACT	CTGGTCACTT	GAACATGCTG	GATATTGGTA	AGCGTATCGG	TGGTGTGCGA	4320
GACTTCAAGA	CCCTAATTGA	GAAGGCTAAG	AAATATGGAG	CTCATCTAGG	TATCCACGTT	4380
AACGCTTCAG	AACTTATCC	TGAGTCTAAA	TACTTCAATG	AAAAAATCT	CCGTAAGAAT	4440
CCAGATGGAA	GCTATAGCTA	TGGTTGGAAC	TGGCTAGATC	AAGGTATCAA	CATTGATGCT	4500
GCCTATGACC	TAGCTCATGG	TCGTTTGGCA	CGTTGGGAAG	ATTTGAAGAA	AAAACCTGGT	4560
GACGGTCTCG	ACTTTATCTA	TGTGGACGTT	TGGGGTAATG	GTCAATCAGG	TGATAACGGT	4620
GCCTGGGCTA	CCCACGTTCT	TGCTAAAGAA	ATTAACAAAC	AAGGCTGGCG	CTTTGCGATC	4680
GAGTGGGGCC	ATGGTGGTGA	GTACGACTCT	ACCTTCCATC	ACTGGGCAGC	TGACTTGACC	4740
TACGGTGGCT	ACACCAATAA	AGGTATCAAC	AGTGCCATCA	CCCGCTTTAT	CCGTAACCAC	4800
CAAAAGATG	CTTGGGTAGG	GGACTACAGA	AGTTATGGTG	GTGCAGCCAA	CTATCCACTG	4860
CTAGGTGGCT	ACAGCATGAA	AGACTTTGAA	GGCTGGCAGG	GAAGAAGTGA	CTACAATGGC	4920
TATGTAACCA	ACTTATTTGC	CCATGACGTC	ATGACTAAGT	ACTTCCAACA	CTTCACTGTA	4980
AGTAAATGGG	AAAATGGTAC	ACCGGTGACT	ATGACCGATA	ACGGTAGCAC	CTATAAATGG	5040
ACTCCAGAAA	TGCGAGTGGG	ATTGGTAGAT	GCTGACAATA	ATAAAGTAGT	TGTAACTCGT	5100
AAGTCAAATG	ATGTCAATAG	TCCACAATAT	CGCGAACGTA	CAGTAACGCT	CAACGGACGT	5160
GTATCCCAAG	ATGGTTCAGC	TTACTTGACT	CCTTGGAAC	GGGATGCAAA	TGGTAAGAAA	5220
CTTCTACTG	ATAAGGAAAA	GATGTACTAC	TTCAATACGC	AGGCCGGTGC	AACAACCTGG	5280

975

ACCCTTCCAA GCGATTGGGC AAAGAGCAAG GTTTACCTTT ACAAGCTAAC TGACCAAGGT	5340
AAGACAGAAG AGCAAGAACT AACTGTAAAA GATGGTAAAA TTACCCTAGA TCTTCTAGCA	5400
AATCAACCAT ACGTTCTCTA TCGTTCGAAA CAAACTAATC CTGAAATGTC ATGGAGTGAA	5460
GGCATGCACA TCTATGACCA AGGATTTAAT AGCGGTACCT TGAAACATTG GACCATTTC	5520
GGCGATGCTT CTAAGGCAGA AATGTGCAAG TCTCAAGGGG CAAACGATAT GCTTCGTATT	5580
CAAGGAAACA AAGAAAAAGT TAGTCTCACT CAGAAATTAA CTGGCTTGAA ACCAAATACC	5640
AAGTATGCCG TTTATGTTGG TGTAGATAAC CGTAGTAATG CCAAGGCAAG TATCACTGTG	5700
AATACTGGTG AAAAAGAAGT GACTACTTAT ACCAATAAGT CTCTCGCGCT CAACTATGTT	5760
AAGGCCTACG CCCACAATAC ACGTCGTGAC AATGCTACAG TTGACGATAC AAGTTACTTC	5820
CAAACATGT ACGCCTTCTT TACAACCTGA GCGACGTCT CAAATGTTAC TCTGACATTG	5880
AGTCGTGAAG CTGGTGATCA AGCAACTTAC TTTGATGAAA TTCGTACCTT TGAAAACAAT	5940
TCAAGCATGT ACGGAGACAA GCATGATACA GGTAAAGGCA CCTTCAAGCA AGACTTTGAA	6000
AATGTTGCTC AGGGTATCTT CCCATTTGTA GTGGGTGGTG TCGAAGGTGT TGAAGATAAC	6060
CGCACTCACT TGTCTGAAAA ACACAATCCA TATACACAAC GTGGTTGGAA TGGAAGAAA	6120
GTGATGATG TTATCGAAGG AAATGGTCA CTCAAGACAA ATGGACTAGT GAGCCGTCGT	6180
AACTTGTTT ACCAAACCAT CCCACAAAC TTCCGTTTGT AAGCAGGTAA GACCTACCGT	6240
GTAACCTTGT AATACGAAGC AGGATCAGAC AATACCTATG CTTTGTAGT CGGTAAGGGA	6300
GAATTCAGT CAGGTCGTCG TGGTACTCAA GCAAGCAACT TGGAAATGCA TGAATTGCCA	6360
AATACTTGGA CAGATTCTAA GAAAGCCAAG AAGGCAACCT TCCTTGTGAC AGGTGCAGAA	6420
ACAGGCGATA CTTGGGTAGG TATCTACTCA ACTGGAAATG CAAGTAATAC TCGTGGTGAT	6480
TCTGGTGGA ATGCCAACTT CCGTGGTTAT AACGACTTCA TGATGGATAA TCTTCAAATC	6540
GAAGAAATTA CCCTAACAGG TAAGATGTTG ACAGAAAATG CTCTGAAGAA CTACTTGCCA	6600
ACGGTTGCCA TGAATACTA CACCAAAGAG TCTATGGATG CTTTGAAAGA GCGGTCTTT	6660
AACCTCAGTC AGGCCGATGA TGATATCAGT GTGGAAGAAG CGCGTCAGA GATTGCCAAG	6720
ATTGAAGCTT TGAAGAATGC TTTGGTTCAG AAGAAGACGG CTTTGGTAGC AGATGACTTT	6780
GCAAGTCTTA CAGCTCCTGC TCAGGCTCAA GAAGTCTTG CAAATGCCTT TGATGGCAAT	6840
GTGTCTAGTC TATGGCATA ATCTTGAAT GGTGGAGATG TAGGCAAGCC TGCAACTATG	6900
GTCTTGAAAG AACCAACTGA AATCACAGGA CTTGCTATG TTCCGCTGG ATCAGGTTC	6960
AATGGTAACT TGCAGATGT GAAACTTGTT GTGACAGATG AGTCTGGCAA GGAGCATACC	7020

976

TTTACTGCAA CTGATTGGCC AAATAACAAC AAACCAAAAG ATATTGACTT TGGTAAGACA	7080
ATCAAGGCTA AGAAAATTGT CCTTACTGGT ACCAAGACAT ACGGAGATGG TGGAGATAAA	7140
TACCAATCTG CAGCGGAAC TATCTTTACT CGTCCACAGG TAGCAGAAAC ACCTCTTGAC	7200
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GAGGAAGTAG CTAGCGTTCA GGCAAGCATG AAATATGCGA CGGATAACCA TCTCTTGACG	7320
GAAAGAATGG TGAATACTT TGCAGATTAT CTCAACCAAT TAAAAGATTC TGCTACGAAA	7380
CCAGATGCTC CAACTGTAGA GAAACCTGAG TTAAACTTA GATCTTTAGC TTCCGAGCAA	7440
GGTAAGACGC CAGATTATAA GCAAGAAATA GCTAGACCAG AAACACCTGA ACAAATCTTG	7500
CCAGCAACAG GTGAGAGTCA ATCTGACACA GCCCTCATCC TAGCAAGTGT TAGTCTAGCC	7560
CTATCTGCTC TCTTTGTAGT AAAAACGAAG AAAGACTAGT ATTTAGTAAA ACCTCTTAAC	7620
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CCCAGAAAAA TCTGGGTGAT AAATGTTATG GTTGTGCTGG TTGAGGATTC TGATTTTGTT	7800
GATCAGGGGT TGTATTGAT TGTGCGTAT TATTGTTAGG ATTGGTAGTC GTACTATTAT	7860
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TAAATACGAA TTCTCCATTT CTGTAGAGCC CCTCTGGTAT ATTCCAATCT TCTGGATTGC	8040
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GCGATTGTTG CAGGGCGTAT TGCAAGGTGA TGTTGCCAAA GTAGCCCCTA TCCCAGTTAT	8700
AAACAGGAGT ATTTGTCCCA GGGTAGTTAT AGGGCTCATC GTGAACGATA GTAGCAGTTG	8760
AATCGTAGAC ACCGTACTCC AAGGCAGGAG CATAGTCTGT GATCGGTTTC ATAGTTGATC	8820

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CCCAGTCGCG	GTTTGTCTCT	ACTGCTTGGT	TAATTCCGAA	GGAAACATTA	CTTGACTGAT	8880
GGCGTGCTCC	TAGCTGGGCA	ATGACTTTAC	CGTTAGAAAC	ATCAACAATG	GTAAGAAGCA	8940
CTTGCAATTC	ATCGTCTGGA	TAGGCAACGT	ATTCTGCTGT	ATTGTAAATA	TCCCACAGAT	9000
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AGCCTGTTTT	TTCTTCAACT	TGATTGATGA	CTTCCTTGAG	GTAATTATCC	ATGTAAGCAG	9120
GGTAATTACT	TGCTGATTTG	AGACTTTGTA	GTCCATCAGT	AATTGGTGTA	TTGACTGCTT	9180
TCTCATACTG	TTCAGCAGAG	ATGTAGCCTT	GATTTTTCAT	TTCAGATAAG	ACCAAGTTTC	9240
GGCGGTCTTG	GGCTGCTTCT	GGATGTGAAT	AGGGGTCATA	TTGGTTTGGT	GCCTGAGGCA	9300
TTCCAGCCAG	CAAGGCTAAC	TGAGGTAAAC	TTAAATTATT	GAGGTCTTTA	CCATAGTAGT	9360
TTTGAGCTGC	TGCTGCAATT	CCATAGTTCC	CATTAGACAT	GTAGACCTTA	TTTATATAGT	9420
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GAGCCTTACG	AGAAATAGTC	TGGTCGGAAG	TCGAAGTTGA	AAAGTAAGTC	AACTTAATCA	9540
ACTGTTGGGT	GAGAGTTGAT	CCACCTTGGA	GGGAATTGCT	TTGCAGATTG	CGCAAGAAAG	9600
CTCCCAGGAT	ACGGATGGTA	TCAATCCCCC	TGTGGTCGAA	GAAGCGATGG	TCTTCGATAG	9660
AAACGATTGC	CTTAACCAAA	TCTGTGGGAA	TATCATTAGC	TTGGGCATTG	ACGCGGCGTT	9720
CAGAACCCAA	GTCAGCAATG	AGTTGATTTT	TATTGTGCGTA	GATTTTACTA	GAAGTTGTTG	9780
CAACTAGTTT	ACTCTCGGAT	AGGCTAGGAG	CCTTGCTAAC	GTAAGTAGAAA	AAAACTCCTC	9840
CGCCTAAGAC	AATGGCTGCG	ATAACCAAGC	TTAAGAAGCT	AATGCTCAGA	TACTTGATTA	9900
GGCGCAGAAT	CGTTGGTTTG	TTTATCTTGT	TTTACCACCT	AATAAATGTT	CTTTGATAAC	9960
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ATATTCAAGT	GGCATTGATT	TTTGTCCTTT	ATCTTGATGA	TAGAAGCGAA	TCAAATCGAA	10080
TGCCGGCAAT	AAGTAGGTTT	CTTGCTGAGA	AGAAAAGTGA	AGAAGGACAA	AGCAGATTCC	10140
TTGTTGGGCA	AGGACTTGTT	CCATATGCTG	AATCTGATGT	GGATGAAAAT	TTTTCATCGG	10200
AATCGCACGT	TTTTGTTTTG	TTTCCTTGAC	TTCAAAGTCG	ATGTAATATC	CATTATAAAC	10260
GCCAGAATAG	TCCGTCGTTG	AAGCTTGTCG	AAAATAGGCT	TCAACAATCT	TGGCAGGACT	10320
TCGTTGTGGA	TAGTCCACTT	GTACGATTTG	AATAGGAGTT	GGTTTCTTAT	GTATAACAGC	10380
CAAGCCCTGA	GACAAATAGT	AGTCGTTGGT	AGCATTGATC	ATCTTTTCAA	AGGGTACCGA	10440
GCTCGAATTC	GTAATCATGT	CATAGCTGTT	TCCTGTGTGA	AATTGTTATC	CGCTCACAAT	10500
TCCACACAAC	ATACGAGCCG	GAAGCATAAA	GTGTAAAGCC	TGGGGTGCCT	AATGAGTGAG	10560

978

CTAACTCACA TTAATTGCGT TCGCTCACT GCCCGCTTTC CAGTCGGGAA ACCTGTCGTG	10620
CCAGCTGCAT TAATGAATCG GCCAACGCGC GGGGAGAGGC GGTTCGCGTA TTGGGCGCTC	10680
TTCCGCTTCC TCGCTCACTG ACTCGCTGCG C	10711

(2) INFORMATION FOR SEQ ID NO: 146:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11887 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 146:

TACATTTCATT CCATCGGCTA CTCCATAATA CTTAGATAAA ACCATAGCTG AAGTCGAATA	60
CGGATACTGT AAAGTATTAT CAATTTTAAT CAAATCATCA TTACCGATAA TACTTCTGAT	120
TGCTTTTGGT AGTATGAACC ATACGTGGT GAAATCTCAG ATAATGAAGA ATCATTAGAC	180
TCTGGACCTT TTTCTAGTGT CTCACTTACC TCATATTCTT CACCCTTACT AGAAATAACA	240
CTCAAAGCAG ATACTGTGCA TAACTGGCTA GCCAATAAAG TACTCGCAAT AATTGAAATA	300
CCCAATTTTT TATAAACAGT TTTCTTCATT ATTGTATCCT CCTAATGTAA TTATAGCGTA	360
CTATTCTAAA TTTCTTAATC TACTATAGAA TCAAGAAATC TACCACCTTC TTTAAATACC	420
CTCCATTATC ACATAAACAG GTAAACTTTT CAATTAATGA CTGCGCTTTT CAATCACGCT	480
AGAGGTACTT GCTTGCTTCT TTGATACTAA GTTCAGCCAT TCTTTCCTTG TTTTCTCAA	540
TAAAGCATGT TACCCAAGTG GGATTCGTTT TGGAGTAGTC TCGCAGAGTC CAGCCAATGG	600
CTTTATTGAT AAAAAATTCT GTTTGGTTCA AGTTATGAAG GAGAATCTTT TCCATTAAAT	660
GAGTATTGGT CTTCTCTTTT CTTAACAAC TGTGGTCAAT AGCGACACGT CTCAGCCAGA	720
TATTATCTGA TAGGCTCCAT TTTATACTCA ATGAAAATCA AAGAGCAAAC TAGGAAGCTA	780
GCCGCAGTTG CTCAAAACAC TGTTTGGAGG TTGCAGATAG AGCTGACGTG GTTTGAAGAG	840
ATTTTCGAAG AGTATTAAGA TTATTCTTC TAGTTCAGGG TGTTCATACA CCAAATCCC	900
TACTACTCGA TCTAGGATAT CTACCGTGT CACAAGGAT TTTGTACGA CTAAGTCTC	960
TAGCTTAGGC AAATCGGTTT CCTTTAGATA AGACTGCATT GCTTTCAAAT AGTTAGCAGC	1020
CACATATTGG TATTTTCTAG GATCCTTTTC CCAGCAAGTG TCTGCAAAAT CCCAATCGAT	1080
AATCTTTGTT TTTTTCGCTT CTGGAAAATA TTTTATAGAG TTTATTCTT TCAGGCACCG	1140
CAATACCTAG AAAAGAAAAT TGATGGCGCA TATAGGCTTC CATGGACCTT GCTTTTCTAG	1200
AGCTTTTGC TGCTTCTAGC TCCTCAAGTA AATCTGCTAA ACTCATCTAA AACTCCTCTT	1260

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GCCCCACCAA ATGGTGTCTGA AAGGCATAGA CAGCCGCCTG GGTACGATCG CTGACTTCAA	1320
GTTTGGCAAG AATATTGGAC ACGTGGGTCT TGACCGTCTT GAGAGAGATA AAGAGGTCAT	1380
CTGCGATGCG CTGATTTTCG TAGCCCTTGG CGATGAGTTG GAGAACATCT CGCTCACGCG	1440
CAGTCAATTC TTCATGAAGT TCCATATGAT TGCGGTGGTA TTCAACCTTC TTGCTAACCT	1500
CTTGCTCAAT GGCCAGCTCG CCAGCAGCTA CCTTACTGAC GGCATGAAGC AATTCATCTG	1560
CACTAGAAGT CTTGAGCATA TAGCCTTTGG CACCAGCATC TAAGACTGGC ATGATTTTTT	1620
CATTGTCCAA ATAAGAGGTC ACAATCAAAA TCTTGGCTTC AGGCCATTCT TTAAGGATTG	1680
CTAAGGTGCG GTCAATCCCA TTCATCTCAG GCATGACAAT ATCCATGACA ATGACATCTG	1740
GACGCAGTTC CAAGGCCAAG TCAATCCCTT GAGACCCGTT GGACGCCTCA CCCACAACCT	1800
CTACATCGTC TTGGAGGTCA AAGTAGCTTT TCAAGCCCAA TCGGACCATT TCATGGTCAT	1860
CTACTAGTAA AATTTTCATC TTTACTCCTT TATCATTCCT TATCTAACAG GGAATACGG	1920
ATATCAACCG CCAGCCCTTG CTTGGGAGCT GTCAAGAGTT GAACTGTTC AGCCATATCT	1980
TCAACCCGCT CCTTGATATT TCGCAGTCCA TAACTCAAGT CGTCTAAGCT CCCTAACTGG	2040
AAACCAATCC CATTGTCCAC CACCTTCAGT TGCAATTCAA CATCTGTCTG ATAGAGGTAG	2100
ACATCTAGGC AAGATGCCTG GGCATGGCGG AGGGTATTGC TAATCAACTC TTGCAGGATA	2160
CGGAAGATAT GCTCCTCGAT TTTCTTAGGC AATTTCTGCA TATTCTGCTT GAGACTAACC	2220
CTAAGATCAC TCTTGCTCTC AAGCTCTTTT AAAAGAATTT GAATCCCTTC TATCAAGCTC	2280
TTCTGCTCCA GTTCAACTGG TCGCAAATGC AAGAGCAAAA CCCGCAAATC CTTCTGGGCT	2340
GTTTCTAAAA TAGCTGTGAC ACTCTGCAAC TGGGTCTGCA TCTTTCTCT ATCCAATTTT	2400
AAAGCCTGCT GACTGATACC CGATAAAATC ATGTGGGCCG CAAACAATC CTGACTGACT	2460
GTATCGTGCA AATCCCAGC AATTCGCTTC CGTTCCTTCT CGATGATTTT CTCTTCCTGA	2520
GCAAGGCTCT GATTTTCAGC TTTTGAAGA GCCTCTGTCA AAAGGTTAAG TTTACCTGAT	2580
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CTGTGGGAGA AAAAAAGAC AAATAGGAAG GAGGTGAGAG CAATAATGAC ATAGGCTTGT	2880
TTTTTCATCC TCTAACCACC TCCACATCAC CAATCATAGT GGTCAAGAAA ATCTTGACAC	2940
TCTTGTTACT CTTGAGATAG TCTTTGTTT CTTGATGATA GTGTTTATTG CGGAGGGCTC	3000

980

GCTTGGGCTG GTTGAAAAA ATCAAATCCC CATAGAGACA GTTAACGCTG AGACTGACTT	3060
CCACATCTAC AGGTACGATG ATTTTGGTCG TTCCTACCAT CTTTCTGAGG ATAATGACAT	3120
TGTCATGATT GGTTAAGATG ACCCTCTCCA GATGAATAGT GTCCTTGCCC ATGAAGCGAA	3180
AGAGATTGAT ATCATCGAAT TGGCAAGTCT GGTAGCTTGA AAAATGATGA AGATTTCCAA	3240
ACCAACGATT TTTCTCCTTC TTAACCGTCA CGACCTCTTC AAAAACCAAA TTGGTCTGCT	3300
CTTTTCTCTG GTTCATCATC GGGTAAAGAA GAAAGAGGCT ATAGATAACC GCAACAAAAA	3360
TAGCTAGAAT CACAAAAGGA TTGAGCATAA CGATGAAAAA GAAGAGAATG GTTGCCGCTA	3420
CTAAAGAAG ATTATTTCCC TCTTTACCAG TGTAGTAGCG AATCAAAAGC AAAAAGAGGA	3480
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TCTATTTTAT CACAATTCAA AAAAGTCACC TCAGTCTGAG GATGGAAAAA AGGCGCTGGT	3660
TACGCCTTTT TCATCTGATC CTTTGCTTCT TTTAATTTTC CATAAAGAAG ATAGTCTACT	3720
TTTTGTAGAT CTGCTATGGT GGCACAGTTA AGGGAACACA TAATCAAGCG TAGATCTGCT	3780
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GGTCCATCCC ACTAAGAAAT CACATTCTAA AGTTGGTTTC ACTTGTGAAA TTGAAAAGCC	5100
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GGAACCATTG TCTCCTCGCT TAAGCAAGAC AGCGCTAGTC AGCTTGAACA AGAGCTCCTG	5280
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TCTAACTAAA GGATCCTATT CAATTACTAG AACTATCACA TACTCAAGGT CAGCTCACAG	8280
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AATTTTACT	AGATAAACT	GTAAATTCTG	AAGGAAGGAT	CACTTCTTCA	ACAGAATTG	8460
GAAATTCGT	AAGTAATTTA	TCATTCCAAC	ACGGAATAGC	TGGACTACTG	TTTCTCTAA	8520
ATAAATTGTA	CCCCCAGAA	CTGGATTCTA	AAATACTCTC	TATCATCAAG	AAGGCAGTGA	8580
CAATTAGAAC	GACACACACA	TATGAATATC	AATACTCACT	GCTATTTGGT	GATGCAGGCT	8640
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CAACGTCAC	CGCTAAAAAA	TTAATAGAGA	ATTATGATAC	TCTAGAGGAA	ATAGACTTTG	8760
CATTGGGAAA	ATCTGGTGTC	CTATTATCAT	TAATAAAATA	CTATCAATTT	ACCAATGACA	8820
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GAGATACAGC	CAAAGAAAGC	ATTTTAGACT	ATAGCTTTGC	TCATGGATAT	TGTGGAATTG	8940
CATATGCTTT	ATTTGCCTAT	TCTAAAGTCT	TAGAACCTTC	TATGTTTAT	AATGATCTCC	9000
ATACATTCCA	TACTGAATTA	AAAAAATTAT	TAGAAAAAGT	TACTTCTAAT	ACTGAAAATT	9060
TAGGAAATTT	ACAACCTTCT	TGGTGCAAAG	GAATTTCCGG	AATAATCTTA	TATCTTTGTA	9120
TGTACGATTG	TGACGGAAAC	AAAGATATTA	TTAGTAAATA	TCAAGAATTT	GTTTTAAACC	9180
ATCATCTAAA	AATGATGACA	GGATATTGCC	ACGGAATAAC	TAGCTTACTA	CAAACCACTG	9240
TCTACAATCA	AAACAAATTA	CTGATGAAAA	AAATCCAACA	GGTAATTTTA	GCATGTTCTG	9300
AACGAGATGA	TCACGGTTTA	CTGATGTTTC	AAGGAGATAG	TGGTAAAGCA	GATTTGTTTG	9360
ACTTCGGAAT	AGGAAGCATG	GGGTATATTG	GTGTCTATTA	AATAATAAAT	TCCCATTCGA	9420
TGTGCAGACA	TAAGGAGAAA	AGTATGAAAT	TATTTTGAC	AAACAACATA	TATAGACAGT	9480
TGCTGCTAAA	CAGCTGTTTT	TCATCATTCG	GCGACAGTAT	TTTCTACCTC	GCCATTATCA	9540
ATTATGTGGC	TCAGTACAAT	TTCGCTCCGC	TAGCGATTTT	ACTGATTTCC	ATTTAGAGAG	9600
TGGTTCCCT	ACTATCGCAA	CTCTTTCTCG	GGATTCTAGG	AGATTTTCAA	GAAAATAGAG	9660
TCAAACACGC	ACTCTGGATT	GCCAAAATCA	AAATCCTGCT	CTACGCTATT	TTGACAGTAT	9720
TTCTCGTCTT	GTCCGCCCTT	TCATTAGTTT	CAGTCATTAT	GATTGTCATC	ATCAACCTCA	9780
TCTCTGACAC	CTTGAGCTAC	CTGTCTGCCT	ACATGATGAA	CGCCCTCTAC	ATCAGTGTA	9840
TTAAGGACGA	CCTGCATGAT	GCCATGGGGT	TCAGGCAGTC	TCTGATGAGG	GTTGTCCGTA	9900
TTGTCGCCAA	TCTGGCTGGC	GCATTCCTTA	TCAATGTTAT	AAGTATTCAA	ACTATTTCCC	9960
TTATCAACAC	TCTGACTTTT	GTCAATGCCT	TTTGGGCCT	GTATGTTATT	CGACATACCT	10020
TGTATGAGGT	TGAAAAAAGA	ATTGAAATGT	CACATACAGC	ACTGAGTTTT	AAGAAATATT	10080

984

TTCAACATCT TAAACAGTCG CTGGCTGTGC TCCTGAGGTT AAAAGATACC GTCATACTAC	10140
TGTTTCTGAC GACCAGTATG ATTGCCATCT TGGATGTGTC CCCTCGGCTG ATTGCCCTCC	10200
GCTTCATCCA ACAGACACTA GCACAACCTGA GCATTGGGCA ACTCCTCGCC CTGCTCTCCA	10260
TCATCATGTC TTGTGGAGCT ATCCTTGGCA ATATGACCAG CAGTAATCTA TTTAAAAATA	10320
TCCGTTTCAC GCACCTCTTG GTTTTCTGTG AGATTTCCTT ATTGACTCTA ATAAGTAGTA	10380
TCCTTTGTCA AGCCTATATC GTAATTTTCA TGACCAGTTT CATCAGTTCT ACGATTATCG	10440
GCATTCTCAG CCCTCGCCTA CAAGCAGCTG TCTTTGCCCA TATCCCCAGT GACAAGATGG	10500
GGACGGTGGG CTCTGCTCTG AGCACAGTGG ACATTCTCGC CCCGTCCCTG CTCTCCCTAT	10560
TAGCCCTATC CATAGCATCG GGCCTTTGGG TGCAGTTAGC ATTGATATTT TTGTATCTTA	10620
TTTTAATGTC TCTTATCTTT TGTCATGGT TAGTCAAGTT CAACACTCAT AACTAACGAA	10680
AAAGCATGTG TAGATTTTAC ATGCTTTTAA TCTCCCCAAT CGTCAGGTCA AGTACAACAA	10740
AGTCACCTCT TTGATTAAGC GAGTGTCTTA ATATAATTAT AAGCGCCCTG TCATTACCGA	10800
ACCCATTTCG CATTATAGTT GACAGAATAG CCATCTACGG TCGTATTAC TGCCAAAGCA	10860
CCTGAGCTAT AAGCATAGTA CCAGTTGCCA TTGACCTGGA ACCAACCTGT CTTCATGTCT	10920
CCATTACCTG CATTTAGGTA GTACCAAGTT GAACCATCTT GATACCAACC AGTTGCCATA	10980
GCTCCTGATG AACGGAGATA GTACCATTGG TTCCCAAGGT TTTGCCAACC TGTTTTCATA	11040
TCGCCATTTG GGTGGTCTAA ATAATACCAA GTGGTACCTT CCTGATACCA GCCAGTGGCC	11100
ATTGCTCCTG AGGAACGGAG GTAGTACCAC TTATTACCTA GATATTGCCA ACCTGTTTGC	11160
ATAATACCAG TTGTTGGATC TAGGTAGTAC CAAGTCGAAT CATCGTTTAT CCACCCCGCA	11220
CGTCTTTCAC CACCAAGGTA GTTTTCTCCA TTAATTTCCG TCTTAGCTAG ATAATACCAG	11280
TTAGACTGAT CATAAAGCCA ACCTGTCTCT AAAGAATGAT TTTGATTAAA GTAATAGTTC	11340
GTATAATAAC GCTTCTCTTC TTTATCTTCT GAATCTTCAC GTTTTTCCTT GTACTTTCTT	11400
CCAACACTGT CTTTAGTTTT AATCTCTAAT GTTTTCCAAC CAACAACTC TTGTAGCACT	11460
CCATTTTAT CGAAGTAGTA CCACTCTGAC TTTGGAAAAC CTTCTAATCT GATACCATTT	11520
GGGTAAGGAC CAATTGTACT ACCTTTAGAT GGAAACGGGA TATATTGCCA GCCGACAACC	11580
ATCTCTCCAG ATAGAGAATC AAAATAATAG TACTTACCAT CAATCACTCG CCAGTAGGTT	11640
TCTTTGAGGT CCCCTTTTTT GTAGTAGGTT CTCCGTTTTT CTTGGACAAA CTGCCATCCT	11700
TCAGAATCAT CTGCAAATAC TGTAAGGTC CCTAGCAAAC CAAAGAAAAA TACTGTCACT	11760
CCAACTTGCA TAGTTTTTTT CAAAATTTTC ATCTATATAC CCTCCAATAT TAAATCCAAT	11820
CACCAGATGA GCGGAAATTA TAACTTTTAC CATCGATAGT TTGGCTACCT GTAACCATTG	11880

985

CTCCAGG

11887

(2) INFORMATION FOR SEQ ID NO: 147:

- (1) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11340 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 147:

CCGGTATGTT CTGGAATACT ACCAATCTAA GCTGGCTGTG CCCTACAGTT TTACAACCCCT	60
GTACGAATAC CTTAAGGAAT ATGACCGATT TTTCAGCTGG GTTTTGGAGT CTGGTATTTT	120
AAACGCTGAT AAAATATCCG ATATTCCTTT ATCAGTTTGT GAAAATATGT CTAAGAAAGA	180
CATGGAATCC TTTATCCTTT ATCTACGTGA ACGTCCCTTG CTGAATGCTA ATACAACAAA	240
ACAAGGTGTT TCACAGACAA CTATCAATCG AACCTTATCA GCACTTTCTA GTCTTTACAA	300
GTATCTAACC GAGGAGGTTG AAAACGATCA GGGGGAACCT TATTTCTATC GTAATGTAAT	360
GAAGAAAGTT TCCACCAAGA AAAAGAAAGA AACCCCTGCT GCCAGAGCTG AAAATATCAA	420
GCAAAACTC TTTCTAGGTG ATGAAACAGA AGGTTTCTA ACTTATATCG ATCAAGAGCA	480
CCCACAACAG CTTTCAAATC GAGCTCTCTC ATCATTCAC AAAAATAAG AACGAGATTT	540
AGCCATTATT GCCCTTCTCT TGGCATCTGG TGTTCGCTTA TCTGAAGCTG TTAATCTAGA	600
TCTAAGAGAT CTCAATCTAA AAATGATGGT TATTGATGTT ACTCGAAAAG GTTGCAAACG	660
TGACTCAGTC AATGTCGCTG CTTTGTCTAA ACCTTATTTA GAGAATTATC TGGCCATTCTG	720
GAATCAACGC TATAAACCG AAAAACAGA TACAGCCCTT TTTTAACTC TCTACAGAGG	780
TGTTCTTAAT CGTATCGATG CTTCTAGCGT TGAGAAAATG GTTGCTAAAT ACTCAGAGGA	840
TTTTAAAGTG CGTGTAACAC CCCATAAACT GCGCCATACA CTAGCAACTA GGCTCTATGA	900
TGCGACTAAA TCACAAGTTT TAGTCAGTCA CCAACTAGGA CATGCTAGCA CACAAGTCAC	960
TGACCTCTAT ACCCATATTG TTAGTGATGA ACAAAGAAT GCTCTGGATA GTTTATGATT	1020
TTACGTATTT TAAATTATGT AAATAAATAT CAAAAAAGA AGTTGGCCAA CTTCTTTTGT	1080
ATTTATCCAA CTACCGCTTC AGCGATTCTC TCACGGCTAA TACCAGCGAA GTAGCGTGTG	1140
ATATCAATGG TTTTTCGCGC CTTAAGAACA TCTTCGCGTT CGTATTTTAC CCCACGAAGG	1200
ACATCTTCTA CTGCAGCAAC GTCTTCAATA CCAAAGAAGT CACCATAAAT CTTGATGTCT	1260
TGGATTTTGT ATTCAGTAAC GTTAGCAAAG ACTTCAACCT TACCACTAGT GAATTTGATT	1320

986

CCACGACGGA CGTTAAATTC AGGTGATTTA CCATAGTTCC AGTCCCAAGT TCCAAACTTA	1380
GTATCCTTGA TGCGATTGAT TTCGGCCAAT TCTTCTTCTG AAAAGACGTA TTCAGTCATC	1440
TCTGGGTA CTTTTTTCAT GTATTCCAAG AGTAAATCAC GGAATTTTTC GACTGTGATT	1500
TTTTTTGGTA ATTCAATTGAT AATATTGGTT ACACGGGCAC GGACGGATTT CACACCTTTT	1560
GATTCAAATT TATCTTTTGA AACCTTAAGG GCATTTGCGA GGAAGTACAA ATCAACGTCA	1620
AAGAGCAAGC AACCGTGGTG CATGATACGG CCGTTGATAT AGGCTTGGGC ATTGCCACAG	1680
AACCTCTTAC CATCAATCTC AAGGTCAATTA CGACCTGTGA ACTCAGCTTT AACCCCAAGT	1740
TGAGCCAGGG TATTGATAAC CGGAGTTGAG AAGCTCTTGA AGTCAAATGC CTTATTTTCA	1800
TCTTCTTTGG AGATGATCGT GTAGTTGAGG TTATTTAAAT CGTGGTAAAC AGCTCCACCA	1860
CCACTAATAC GCGGAATAC CTCAATACCA TTTTCGCGAA CATAATCACG GTTGATTTCT	1920
TCGATAGTGT TCTGGTGACG ACCAACAATG ATAGATGGCT TGTTAATCCA AAGTAGGAAG	1980
ATTTGATCCT CATCCAAAAG GTGTTTAAAG GCGTATTCTT CCAAGGCAAT ATTAAAAGCA	2040
GTGTCATTG AATGATTGAT AATGTATTTC ATGATATCCC TTTACTTTAT ATGATAGAAA	2100
CTGGAATAA CTTCCAGTC TAATCTATCT TCGTTTTATT TTTTCTTAGG TGAATGGATG	2160
GCCATTCTTA GAACATCTGC AAACGCTTCG TACATCACTT CAGAGTAAGT TGGGTGCCCCG	2220
TGGATGGTCT TCAGCATTTT CTCAACAGTG ATTTCCATTT CGATGATGCT TGATGCTTCG	2280
TTTATTAATT CTGCGGCTGC AGGACCAATA ATGTGTACAC CAAGGATTTT TCCGTATTTT	2340
TTATCAGCGA TAACTTTTAC GAAACCTTGA GCTGCGTCAG ATGCAATAGC ACGACCGTTA	2400
GCAGCAAAGT TAAACTTACC GATGGCAACA TCGTATTCTT CACGGGCTTG TTCTTCTGTC	2460
AAACCTACTG CTGCTACTTC AGGGAGAGTG TAGATGGCTG CAGGAGTCAA ATTCAATTTG	2520
GCAACTGCAT GATTTCTTTT AAGGGCATT TACGCGGAAA CTTACCCAT GCGGAAAGCT	2580
GCGTGAGCCA ACATCTTAGT ACCGTTGATG TCACCTGGTG CATAAATGCC TGGAACTGAA	2640
GTTCCTCATG ATTCGTTGAC CTTGATACAA CCACGATCCA ATTCAAATC AACCTCTCTA	2700
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TCTTTTCCTT CAACCTTGAT ACGAAGTTGA CCATTTTCTT CAATGATTTT TTGCAGTTTA	2820
GTACCAGTCA AGATGGTCAT TCCTTTACGC TCAAGAATCA AGCGAAGGTT CTTAGAAACT	2880
TCCACATCCA TAGCTGGAAC TATACGGTCC ATCATTTTGA TAACAGTCAC TTTTGAACCA	2940
AATGTATGTA AGGCCTGACC GAGTTCGATA CCGACAATC CACCACCGAT GATAACAAGG	3000
CTTCTGCGCA CTTGCTTCAT TTCAAGAATG TCATCACTAG TCATGACAAG TGGAGATTCC	3060
ATACCAGGGA CGTTGATCTT GTTGACTTTT GAACCACCAG CAAGAATGAT TTTCTTGGTT	3120

987

TCAAGCAATT CAGAACCATT TACCAAGACG TTCTTGCTCT TAGTGATTGT ACCAATTCCT	3180
TTATGAACAG TAACTCCGTA GCTACGAAGA AGTCCTGCAA CACCACCAAC AAGAGTATTA	3240
ACAACCTTAG ATTTAGTTTC TAAAAGTTTT TCCATATCAA CAGTGAAGTT AGGATTTTCA	3300
ATCACGATAC CACGATTTGC AGCATGACCG ATATTTTCAA TAATTTTCAGC GTTATGAAGG	3360
TAGGTCTTGG TTGGAATACA TCCACGGTTT AAGCAGGTTC CACCAAGTTC AGATTTCTCA	3420
ACAAGGGCAA CCTTACCGCC GAATTGGGCA GCTTTAATGG CTGCAACATA ACCAGCAGGA	3480
CCTCCACCAA TCACAACGAT ATCAAAAGCA TCATCGCTCT TACCATCATC GTTTGAGGTA	3540
CTTGCTACAG GTACAGGGCT AGCTTCTGGC GATGCTGCTC CAGCTGTTGG GATGTTTCC	3600
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AGAATGGCAA TCAAGTACCC ATCTTCTTCG GCTTCCAATT CCATGCTGAC TTTATCAGTC	3720
ATGATTTCCA AAAGGATTC TCCTTCTTTT ACAAATTCTC CGACTTTTMTT ATTCCATTGG	3780
ACGATTTGTC CTTCTGTCAT ATCCACGCCG GCTTTGGGCA TAATTACTTC TAAGGCCATG	3840
TCTTCTTCC TTTATCTATA TCTTAAAAAT GAATACTCTT GCTCTTAAAT TAACATTGAG	3900
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ACGACACGGT GGTCAATGGT TAATCCTAAA CTCATGATTG GGCGAATCAC AATTTACCA	4020
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GAATTTTGTA ACTCACTTGG AGCCAATTTA CCATCCAAGG TACGGCCAAT AACATCCTTA	4200
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AATCCATTAT CCATCCCAAC TGCCATGGCA AGATTGACAT AGTTGTGAGT GATAATAGTC	4320
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ATTGGAATAC GCTCGATTTT ACCATATGGT GTTACGTTAT CAGGGACTTC TTCCACTTTT	4620
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TAAGTTTCCA CGTCTTCTTT GTGGACACGA CCGTTTGAC CTGAGCCAGA AACGTCGTAG	4860

988

AGGTTTATCC CTAAATCATC CGCTAACTTT CTAGCTGCAG GAGTCGCTCT TAGCTTGTCA	4920
TCAGCCATGA CCTCTCCAAT TCTATTTATG ATACAAAGGG CGTCAAAAGC GACTGAAAAA	4980
TAGGAAATCG ACGATGGCTT CGATGAAGCC AAGGAGATTT ATCTTTTTC CGATCTTTTA	5040
GCCCGTGCTC TAATCTAAGA TATTAATGAC GAAGAGCTCT GCACCTAAAA GATACAAAGT	5100
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TTGTGCATAA GGCATCGGCA CATCTTCTCC TGCACAACGG CGAATTGGTG CATCTAGATA	5280
GTCAAATGCT TCTGATTCTG AAATAATAGC TGAAATTTCA CCGATATAGC CACTTGTTC	5340
GTGGGCATCG TTGACCAGAA CAACCTTACC AGTCTTCTTC ACTGAGTTTA TGATGATATC	5400
CTTATCAAGC GGAACAAGGG TACGTGGGTC AACAATTTCA ACTGAAATTC CTTCTTCTGC	5460
TAATTCCTCA GCAGCTTGAA CCACACGGCG AAGCATTTTT CCATAAGTAA CAACTGTTAC	5520
ATCCGTTCTT TGCGTTTGA TTTCACCAAC CCCAAGTGGA ATTGTGTAGT CTGGATCAAC	5580
TGGCACTTCC CCTTTTGGT TAAATCTGA CTGTACTCA AGTATAATAA CTGGGTTGTT	5640
ATCACGGATA GAAGACTTAA GCAGGCCTTT CATGTCCGCA GGTGTTCCAG GTGCCACAAC	5700
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GCCAACTCCG TTACCAGCTG CACAACGAAC AGTCATTGGA ACCTGACCTT TACCACCAA	5820
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CATTGTTTTT GTTTCCATT TATCTCTTTC TCCTTAGTCT GCGTAAATAT CTTCAAAGGC	6180
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ACGATATTTA CCAGGGTCAG ATGATGAGTG ACCGAGCCAG CGATAAGTTA CACTTTCAT	6420
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AAACGCACTG TCAATCGAT AAATTTGGG TCGTTACCAT AAAGACTGGC CACATTTCCC	7620
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990

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GTCATTGCAG TATCAACAAA AGAGGCAGAA TAATTGGCAA ATTGGTAGAT CAGGATTGGG	8580
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TGATCTCAGA CGCAATTTTG ATAATTTTCC CATCTTGAAC TAAGACATCA CAAACTTGAT	10140
CCAAACCAGA CTTGGGATCC ATTACACGAC CATTTTGTAT TAGTAGCATC TGCTTCTTCC	10200

991

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TCGGCTTGCT	CAAAACCTCA	TCATAGGGAA	CCCATTCTAG	CGTCCCCTCA	TGTCAGTCAA	10380
TCAAGTCGCC	CTCAAACCTC	GTCACCTTAA	AAACATAGGT	GTACCAGTCT	AAATCTGGTG	10440
TAAATTCAGG	AAAAGTGATG	ACACCTTTTA	GAACCTGGCTT	GGCTTTGAGC	CCTGTTTCTT	10500
CAAGGATTTC	ACGCGCCGCG	CATTCTCTGGG	GCCTCTCTCC	TCTCTCTAGC	TTACCACCCA	10560
CACCAATCCA	TTTCCCTTCA	TGGACATCAT	TGGGTTTCTT	ATTACGATGG	AGCATGAGCA	10620
GTTCTTTCCC	ATTATCAATG	TAGCAAATCG	TCGCTAACTG	AGGCATATTT	TCTCCTTATC	10680
TAAGCCAAATC	GATTGGCTCT	TGTCCTGTCT	CTTTTAAGAA	TGCATTGGCC	TTGGAAAAGG	10740
GCTTGGAACC	CCAAAATCCT	CTATAAACCG	ACAAAGGACT	TGGATGGGCT	GATTCGATAA	10800
TCAAGTGATG	AGGATTGGTA	ACTAATGCCT	TCTTCTTACG	TGCATAAGCT	CCCCAGAGTA	10860
CAAAAACGAC	TGGTCTATCT	AGATGATTGA	CCACCTGAAT	CACAGCATCA	GTAAAAGGCT	10920
CCCAGATTTC	ACCAGCATGA	CCATTGGCCT	GTCCAGCAGG	AACAGTCAAA	CAAGCATTA	10980
GAAGCAAGAC	TCCTTGCTCA	GCCCAAGCTG	TCAAATCATG	AGATTCTCTA	ACTCCGATAT	11040
CATCTGACAA	TTCTTTCAAG	ATATTTTGCA	AGGATGGTGG	AGCTGGGATA	GAGTCAGGTA	11100
CAGAAAACT	CAAGCCCTGC	GCTTGACCTG	GTCCGTGATA	GGGGTCTTGC	CCTAGAATTA	11160
CCACCTTAAC	TTCTTCAAGC	AGTGTGTGCA	AGAGAGCCTG	AAAAACCTTT	TCCTTGGGTG	11220
GATAAATAAT	CCCCTGAGAA	TAGACCTGCT	CCATAAACTG	ATTGATTTTC	CCGAAATAAC	11280
CCTCAGGTAA	TTGCGCCTTA	ATCAAAGCAT	GCCAAGACGA	GTGTTCCATA	GCCGACTCGG	11340

(2) INFORMATION FOR SEQ ID NO: 148:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12127 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 148:

AAAAAATAGA	CTTGTTAGAC	TATAAATGTA	GTAAGCCTAC	ACAAGAAAAA	TACATAGAGA	60
TAAAGGTGAT	TATTATGAAA	TTCAAAAAAA	TGCTTACTCT	TGCAGCCATT	GGCTTATCAG	120
GATTTGGGCT	TGTTGCCTGT	GGCAATCAGT	CAGCTGCTTC	CAAACAGTCA	GCTTCAGGAA	180
CGATTGAGGT	GATTTCACGA	GAAAATGGCT	CTGGGACACG	GGGTGCCTTC	ACAGAAATCA	240

992

CAGGGATTCT CAAAAAAGAC GGTGATAAAA AAATTGACAA CACTGCCAAA ACAGCTGTGA	300
TTCAAAATAG TACAGAAGGT GTTCTCTCAG CAGTTCAAGG GAATGCTAAT GCTATCGGCT	360
ACATCTCCTT GGGATCTTTA ACGAAATCTG TCAAGGCTTT AGAGATTGAT GGTGTCAAGG	420
CTAGTCGAGA CACAGTTTTA GATGGTGAAT ACCCTCTTCA ACGTCCCTTC AACATTGTTT	480
GGTCTTCTAA TCTTTCCAAG CTAGGTCAAG ATTTTATCAG CTTTATCCAC TCCAAACAAG	540
GTCAACAAGT GGTCAAGAT AATAAATTTA TTGAAGCTAA AACCAGAAACC ACGGAATATA	600
CAAGCCAACA CTTATCAGGC AAGTTGTCTG TTGTAGGTTC CACTTCAGTA TCTTCTTTAA	660
TGGA AAAAT AGCAGAAGCT TATAAAAAAG AAAATCCAGA AGTTACGATT GATATTACCT	720
CTAATGGGTC TTCAGCAGGT ATTACCGCTG TTAAGGAGAA AACCCTGAT ATTGGTATGG	780
TTTCTAGGGA ATTAACCTCT GAAGAAGGTA AGAGTCTCAC CCATGATGCT ATTGCTTTAG	840
ACGGTATTGC TGTGTGGTTC AATAATGACA ATAAGGCAAG CCAAGTCAGT ATGGCTGAAC	900
TTGCAGACGT TTTTAGTGGC AAATTAACCA CCTGGGACAA GATTAAATAA AATGTTTGCT	960
CCATAAATCT CTAAGAGAT GCAGACGTTT CATCGTACAA TAAGATAAAG AAGGCAAGTA	1020
GGGAGGTGTC GTATCTCCCT TACTTTCTTC ACTAGAAAGG ACAAGATGTG ACAAACAAG	1080
CCTTCAAGA AGCAGTTTTT AGGGCAATTT TTTTCATGAG TGCAACAGTA GCTGTTGTAG	1140
CTATTTTGCT AATCTGTTTC TTTATTTTAA GTAATGGCTT ACCTTTCATA GCTAACTACG	1200
GCTTTGCCCC TTTTATTATTA GGCAGTGATT GGTGCGCAAC GAACATTCCG GCAAGCTATG	1260
GTATTTTACC AATGATCGTT GGTTCCTTAT TAATTACCTT AGGAGCGATT GTGATTGGGG	1320
TGCCAACAGG CATCTTGACA TCGGTGTTTA TGGTTTATTA TTGTCCAAAG CCCGTCTATG	1380
GCTTCTTAAA ATCAGCTATC AACTTGATGG CAGCCATTCC ATCTATTGTT TATGGTTTTT	1440
TCGGCCTACA ATTATTGGTG CCTTGGATTA GAAGCTTTT AGGAAATGGC ATGAGTGTCC	1500
TAACCGCTTC GTTACTATTA GGAATAATGA TTTTGCCAAC CATTATCAGT TTGTCAGAAT	1560
CTGCTATCCG AACAGTCCC AAAACGTATT ATTCTGGTAG CTTGGCTCTA GGAGCTAGTC	1620
ATGAACGGAG TATTTTATAG GTCATCTGTC CAGCTGCGAG ATCTGGTATT TTATCAGCAG	1680
TTATTTTAGG AATCGGTCGC GCAGTAGGTG AAACCATGGC AGTTATTTTG GTGGCAGGCA	1740
ACCAGCCGAT TATTCCAAGT GGAATCTTTT CAGGAACCAG AACCTTAACA ACCAATATTG	1800
TTCTGAAAAT GGCTTACGCA TCAGGTCAGC ATAGGGAAGC CCTTATTGCA ACCTCAGCAG	1860
TTCTCTTTTT CCTTATTCTC TTGATTAATG CCTACTTTGC CTACTTGAAA GGAAAATCAT	1920
CTTATGAGTA AATACCTGCT AAAACTTCTC GTTTATTGTT TTTCAGCTTT AACCTTTGGC	1980
TCTCTCTTTT TAATCATTGG TTTTATCCTC ATCAAAGGCT TACCTCATCT AAGTCTATCC	2040

993

CTCTTTTCTT	GGACTTATAC	TTCTGAGAAC	ATTTCCCTTA	TGCCAGCGAT	TATTTCCACC	2100
GTATTCTGG	TCTTTGGTGC	TCTTCTTTTA	GCCTTGCCCA	TAGGGATTTT	TGCTGGTTTT	2160
TATCTTGTGG	AATATACAAA	AAAAGATTCC	CTTTGTGTTA	AAATCATGCG	ATTGGCCTCA	2220
GATACCTTAT	CTGGGATTCC	TTCCATTGTT	TTTGGTCTGT	TTGGCATGCT	CTTCTTTGTA	2280
GTCTTCTTAG	GTTTCAATA	CTCTCTGTTA	TCAGGAATCT	TAACCTCAGT	TATCATGGTG	2340
TTGCCAGTCA	TTATTCGCTC	AACAGAAGAA	GCCCTTTTAT	CTGTTAGTGA	TAGCATGCGT	2400
CAAGCAAGTT	ATGGACTTGG	GGCAGGTAAG	TTACGGACTG	TTTTTAGAAT	TGTTCTACCA	2460
GTGGCCATGC	CAGTATTTT	AGCTGGAGTG	ATACTAGCTA	TTGGCCGTAT	CGTTGGTGAA	2520
ACAGCTGCCC	TCATGTATAC	ATTAGGTACC	TCTACCAATA	CGCCAAGTAG	TCTCATGTCT	2580
TCAGGCCGTT	CTCTAGCCCT	ACATATGTAT	ATGCTGTCAA	GTGAGGGGCT	ACATGTCAAT	2640
GAAGCCTATG	CTACCGGCGT	GATTTTGATT	ATTACTGTTT	TAATGATAAA	TACTCTATCA	2700
AGCTTATTAT	CTCGAAAAC	TGTGAAAGGA	GCTTCCTAGT	ATGGGAACAT	TTTCAGTCAG	2760
ACACCTAGAC	TTATTTTACG	GGGATTTTCA	AGCCTTAAAA	AATATTTCGA	TTCAATTACC	2820
AGAAAGACAG	ATTACTGCCT	TGATAGGCCC	ATCTGGTTGT	GGCAAATCAA	CTTTTCTAAA	2880
AACCCTTAAC	CGGATGAACG	ATTTGGTTCC	TTCTTGCCAT	ATTGAAGGCC	AAGTCTCTTT	2940
AGATGAGCAA	GATATTTATA	GTAGCAAATT	CAACCTTAAT	CAGCTACGTA	AGCGGTAGG	3000
GATGGTTTTT	CAACAGCCTA	ATCCCTTTGC	CATGTCTATC	TATGATAACG	TGGCTTATGG	3060
CCCAAGGACA	CATGGTATTC	GAGACAAAAA	ACAATTAGAT	GCCTTAGTGG	AGAAATCTTT	3120
AAAAGGGGCA	GCCATTGGG	AAGAAGTCAA	AGATGATCTT	AAAAAGAGTG	CCATGTCCTT	3180
ATCTGGCGGT	CAGCAGCAAC	GCCTTTGCAT	TGCGCGAGCT	TTAGCAGTAG	AACCTGATAT	3240
TCTGTTAATG	GATGAGCCGA	CTTCAGCCTT	AGACCCTATC	TCCACTTTAA	AAATTGAAGA	3300
CCTCATTCAG	CAACTAAAAA	AGGATTATAC	GATTATCATT	GTTACCCATA	ACATGCAACA	3360
AGCTTCACGT	ATTTAGATA	AACTGCCTT	TTTCTTAACA	GGAGAAATTT	GCGAATTTGG	3420
AGATACCGTT	GACGTGTTTA	CCAATCCAAA	AGATCAGCGC	ACAGAAGACT	ATATTTCAGG	3480
ACGGTTCGGA	TAAGGAAGGA	AAAACCTATG	AGAAATCAAT	TTGACTTAGA	ATTGCATGAA	3540
TTAGAACAAT	CCTTTTTAGG	ACTAGGGCAA	CTTGTCTTGT	AAACAGCTTC	AAAAGCCTTA	3600
CTGGCCTTAG	CCTCCAAAGA	CAAGGAGATG	GCAGAGCTAA	TTATCAATAA	GGATCATGCT	3660
ATCAACCAAG	GTCAAAGCGC	TATCGAATTG	ACCTGTGCCC	GTTTGTGGC	CTTGCAGCAG	3720
CCACAAGTGT	CTGACCTTCG	ATTTGTGATT	AGCATCATGT	CTTCTTGTTT	AGACCTTGAA	3780

994

CGTATGGGAG ACCATATGGC AGGCATTGCC AAAGCTGTTT TGCAACTAAA AGAAAATCAA	3840
CTAGCCCCCTG ACGAAGAACA GTTACACCAA ATGGGTAAAT TATCCCTCAG CATGCTAGCC	3900
GATTTATTGG TTGCCTTTCC TTTGCACCAA GCCTCAAAAG CTATTAGTAT TGCTCAAAAA	3960
GATGAACAGA TTGACCAATA TTATTATGCC TTATCAAAGG AAATCATTGG ACTTATGAAA	4020
GACCAAGAAA CCTCAATTCC CAATGGAAC CTATACCTTT ATATCATAGG GCATCTGGAA	4080
CGCTCGCTGA TTACATTGCT AACATTTGTG AACGCCTAGT CTACCTAGAA ACAGGAGAAC	4140
TAGTGGATT TTAATTAATTC AACTAATCCT TAAAAGAGAA GAGTACGATT AAGTACTCTT	4200
TTTTATGGTT GTAAAAAGT TCATTTGACC AATTTAAGCA GTGTAGATAG TGAGGAGTTG	4260
TTTCAATTCT ATCGTGAACG AGGGAATGCT GAAAACCTTA TCAAAGAAAG GAAAGCAGGA	4320
TTCTTTGGGG ATAAGACAGA TAGTTCGACC ATGATTAAAG ATGAAGTACG TATGATGATG	4380
GGCTGTCTGG CTTATAATCT CTACCTCTTT TTAAGCAGC TAGCTGGTGA TGAAGTAAAG	4440
TCCTTGACTA TCAAGCGTTT TCGACGCTC TTCCTTCATA TTGCCGAAA ATATGCTCTCT	4500
ACTGCTAGAC GACATATTCT CAAATTCTCA AGTCTATACG CCTATTCAAA ACAGTTTCAA	4560
GCCTTATTGG ATACAATCTG CCAGATAAAT CTGATACTCC CTGTTCCATA TAGAGCTAGA	4620
GGGAGGGGA AAACATGCCT AACAGAATAA GTCACCTTAT TTTAAAAATC GAGCATCAAA	4680
CCAGGGGAG AGTCTGCCCT TTTTAGGAA AAAATCAAGA CAAATCTCCT CAATTATGTC	4740
TCGAACATCA GAAATTAAGC AAAATCACCA GAAGGACAGT ATTTCAACTA GCTTTTCTGG	4800
TAATTTTGA ACTGTGTAGT TCGTTAGTGC CAGATATGAA TAATTTGGGA TGATAAATCT	4860
TTCTTCCCTA GGTAGCCTAT CATAATACTC TTCAAAAATC TTATCAAAAA CACTCTCTTT	4920
CTTTTGGGCG ATAGTTTCAT CTTTCGTATGT AGGAGTCCCTC ATCAAGAAAT ACTTCAATTC	4980
TAGGTATTCC TTATCCAACT CTATATAACT TGGCATCAAC TTGTAATCTT CAACCCCAA	5040
ACGTTACGCA ATATATTTTA ACTTTGTTAG TATTGGTCTG GATTCTCCAT TTTCAATTCT	5100
AATTAATTGA CGGATACTTA ATTCAGACTC ATCACCACAA AATTCTGAAC GACTGATTTC	5160
TTTAGCCAAA CGTAATCTTT TAATTTTTC GCCAACTCT CGCAACCTAC AAGAACTTCC	5220
TGAGTTGTTT ACCTCTATTA TAAGCATATA CTGAATCAAA CTATCTATCA GATTCTTCT	5280
CACTTTAACT AAAGACTAAG AGTTTATCCC TTCGTCTCGG TTTTGTGTA TTTTCCACC	5340
ATACCCAGT AATGCAAGTG CAAAATCCCC TAGAATATGA TAGAATAAGA GAAAGAACTC	5400
TATCAAGGAG GAAATCATGG AAAAACAAAC CGTCGCCGTC TTGGGGCCTG GTTCTTGGGG	5460
AACCGCCCTT TCACAAGTCT TAAATGACAA TGGACACGAG GTACGTATTT GGGGAAATCT	5520
TCCCAGCAA ATCAATGAAA TTAATACACA CCATACTAAT AAGCACTACT TTAAAGATGT	5580

995

CGTTCTAGAC	GAAAATATCA	TTGCCTACAC	CGACTTAGCA	GAAACATTGA	AAGATGTGGA	5640
TGCGATTTTG	TTTGTGTGCC	CAACAAAAGT	GACACGACTT	GTTGCCCAGC	AAGTTGCACA	5700
AACCTTGGAC	CATAAGGTTA	TCATCATGCA	CGCATCAAAG	GGATTAGAAC	CTGATAGCCA	5760
TAAACGATTA	TCAACCATTC	TTGAAGAAGA	AATTCCTGAA	CATCTCCGTA	GTGATATCGT	5820
CGTTGTTTCA	GGGCCTAGTC	ATGCAGAAGA	GACCATTGTG	CGTGACCTAA	CTTTAATAAC	5880
TGCTGCTTCT	AAAGATTTAC	AAACAGCTCA	ATACGTTTCA	AAGCTATTTA	GTAATCACTA	5940
CTTCCGACTT	TATACCAATA	CGGATGTTAT	CGGGGTTGAA	ACTGCTGGTG	CTCTTAAAAA	6000
TATTATTGCT	GTCGGTGCTG	GAGCTTTACA	TGGTCTTGGA	TTTGGTGATA	ATGCTAAGGC	6060
AGCCATCATC	GCTCGAGGTT	TAGCAGAAAT	CACCCGCCTA	GGGGTAGCAC	TCGGGGCCAG	6120
TCCATTGACC	TATAGCGGCT	TATCTGGTGT	GGGAGATTTG	ATCGTAACGG	GAAC TTCCAT	6180
CCACTCTCGT	AACTGGAGAG	CTGGAGATGC	TCTCGGACGA	GGAGAATCCC	TAGCTGATAT	6240
AGAAGCTAAT	ATGGGCATGG	TAATCGAAGG	AATTTCAACG	ACTCGAGCAG	CCTATGAACT	6300
AGCCCAAGAA	CTTGGAGTCT	ATATGCCCAT	TACACAGGCT	ATTTACCAAG	TTATTTATCA	6360
CGGAACCAAT	ATCAAGATG	CCATTTATGA	CATCATGAAC	AATGAATTTA	AAGCAGAAAA	6420
TGAGTGGTCT	TAACCCCTCTA	TAGAAAGGAT	TTTTATGACA	TCAAAAAGTTA	GAAAGGCAGT	6480
CATCCCTGCT	GCTGGACTAG	GAAC TCGATT	TTTACCAGCA	ACCAAGGCCC	TTGCCAAAGA	6540
AATGTTGCCA	ATCGTAGACA	AACCAACTAT	CCAGTTTATC	GTGGAAGAAG	CTCTCAAATC	6600
AGGTATTGAA	GATATTCTAG	TTGTCACTGG	TAAATCAAAA	CGTTCTATTG	AGGACCACTT	6660
TGATTCAAAC	TTCGAATTGG	AATATAACCT	CAAAGAAAAA	GGGAAAACAG	ATCTTTTGAA	6720
GCTAGTTGAT	AAAACAAC TG	ACATGCGTCT	GCATTTTATC	CGCCAAACTC	ATCCACGCGG	6780
TCTCGGAGAT	GCTGTTTTGC	AAGCCAAGGC	TTTCGTCGGA	AATGAACCTT	TTGTCGTTAT	6840
GCTTGGTGAT	GACTTGATGG	ATATCACAGA	CGAAAAGGCT	GTTCCACTTA	CCAAACAAC T	6900
CATGGATGAC	TACGAGCGTA	CCCACGCGTC	TACTATCGCT	GTCA TGCCAG	TCCCTCATGA	6960
CGAAGTATCT	GCTTACGGGG	TTATTGCTCC	GCAAGGCGAA	GGAAAAGATG	GTCTTTACAG	7020
TGTTGAAACC	TTTGTGAAA	AACCAGCTCC	AGAGGACGCT	CCTAGCGACC	TTGCTATTAT	7080
CGGACGCTAC	CTCCTCACGC	CTGAAATTTT	TGAGATTCTC	GAAAAGCAAG	CTCCAGGTGC	7140
AGGAAATGAA	ATTCAGCTGA	CAGATGCAAT	CGACACCCTC	AATAAAACAC	AACGTGTATT	7200
TGCTCGTGAG	TTCAAAGGGG	CTCGTTACGA	TGTCGGAGAC	AAGTTTGGCT	TCATGAAAAC	7260
ATCCATCGAC	TACGCCCTCA	AACACCCACA	AGTCAAAGAT	GATTTGAAGA	ATTACCTCAT	7320

996

CCAACCTGGA AAAGAATTGA CTGAGAAGGA ATAACAAAAT CATTTATATA AAGATTAGCC	7380
ACACATAAAT TAAGTAAATT CTCTACTTGA ATCTACCTAT TTAATAAAAA CTAATGAAAA	7440
CGCTATACTT GTATTTGTTT TTTCATTAAA ATAAGAGTAG AATAAATTAG TATAGTAAAA	7500
CAAAAAAGCA CCGAATCGGT GCGCACTTTT TCAAGTTGTG TACGGACAAA GCCTTATTTT	7560
AACTTTGCTA TGTGTGTTCT AATGGTTCCA AAATAATAAA TAATTTTAAA TTTGACTTAA	7620
CTGTTGGAGT AGTCATGGTT AAATTAAATC AACCAGCCG AACATAAGTT GTTTAATTTT	7680
GTGGAAGCTA TTAATAAAAA TATAATAAGG GAGAAAGATA GGTGTAATTT TAATTTTAAA	7740
GTAATTGCGG AACTATCAAA AGAAAAAGAT TATGGAGAAC AAATTTGTAG AATTTATCGA	7800
AAACAATAAA AAAGTAATCA TTTCATCAGT TGCAGTTGGT GTTGTATTGG TATTAGGGTT	7860
TGGATGGTAT TCATATAACC AACAACAAGC AGAACAACAA GCAAAAATTG TACAATTAGA	7920
AAAAGATAGC AAATCAGACA AAGAACAAGT TGATAAACTA TTTGAATCAT TTGATGCATC	7980
TTCAGATGAA TCTATTTCTA AATTAAAAGA ACTATCTGAA ACTTCACTTA AAACCGATGC	8040
AGGTAAAGAC TATCTTAATA ACAAGTCAA AGAATCATCT AAAGCAATTG TAGATTTTCA	8100
TTTGCAAAAA GGTTTGGCTT ATGATGTTAA AGATTGAGT GACAAATTA AAGATAAAGC	8160
AACTCTTGAA ACAATGTAA AAGAAATTAC AAAACAAAT GATTTTATCA AAAAAGTTGA	8220
TGAAACTTTT AAACAAGAGA ATTTGGAAGA AACTCTTAAA TCTCTAAATG ATCTTGTGTA	8280
TAAATATCAA AAACAAATCG AACTTTTGAA GAAAGAAGAA GAAAAAGCTG CTGAAAAAGC	8340
TGCTGAAAA GCAAAGGAAT CTTCTAGTCA AAGTAATTCT TCTGGTAGTG CTTCTAATGA	8400
GTCTTATAAT GGATCTTCCA ATTCAAATGT AGATTATAGT TCATCTGAAC AAATAATGG	8460
ATATTCAAAT AATTATGGCG GTCAAGATTA TTCTGGTTCA GGAGATAGTT CAACAAATGG	8520
TGGATCATCA GAACAATATT CATCTAGCAA TTCAAACAGC GGAGCAAATA ATGTCTACAG	8580
ATATAAAGGC ACTGGTGCTG ACGGCTATCA AAGATACTAC TACAAAGATC ATAATAATGG	8640
AGATGTGTAT GATGACGATG GAAATTACCT TGGGAACTTT GGTGGCGGCA TTGCAGAACC	8700
TAGTCAACGC TAATAACTAT TTTAGAGCTG TGTGTTTCG AATGGTTCCA AAACACATTA	8760
AAAGCTACTC ATTTTTTAAG TAGCTTTTTT CTTATTCAAG TTTACATATT ATACTCAATG	8820
AAAATCAAAT TCAAACCACG TCAGCATCGC CTTACCGTAG GTATGGTTAC TGACTTCGTC	8880
AGTTTCATCT ACAACCTCAA AACCATGTTT TGAGCTGACT TCGTCAGTTC TATCTACAAC	8940
CTCAAAGCAG TGCTTTGAGC AACCTGCGGC TAGCTTCCTA GTTTGCTCTT TGATTTTCAT	9000
TGAGTATTAG TCGTCACAAAT CCCATTCCCT TGTAGAAAAG CAAAATGGCG AGTCCTACGA	9060
ACAAGACTAC CGCTCCTAAT CTCTGGCTGG TGTATACAT CCGTTTTTCT CCTCTAACTG	9120

997

GAAAGATAAC TGCTAGAAAT GCGCCACCAA CTGCACCACC GATATGGCCT GCTAGGCTGA	9180
TTCTTGGAAT CAGAACACTT CCAATAATGT TAACCACAAA AAGTGTGAGA TAGGATTGCC	9240
CTAGCTGTTG GATATAAGGA TTGCGAGTTG CATAGCGAAG AACAATAATC GCGGCAAATA	9300
GCCCATAAAG AGAGGTAGAG GCGCCTGCTG CTAAGGATTT AGGACTAAAT ACAAAAACAA	9360
AGAGATTGCC CATCATTCCT GATAAAGAT AGAGAAAGAA AAAGTCTTA GAACCGAAAA	9420
TCTCCTCTAC CTGCCTTCCA AGATAATAAA GTGAAAGCAT ATTAACAATG AAATGTTCCC	9480
ACCCAATATG AACAAAAATG GCAGACAAGA GACGCCAAC CTGCTCGGGA AAGAGGCGAA	9540
TAGCTGGCCC ATACATGGCT CCAATCGAA ATAATGTATC TGCCCTGTCA AAGTTTCCGC	9600
CTGCAGTGAC CAACATTAGT AAAAATACCA AGGCCGTAC TAAGAGGAAG AAAGTCTCA	9660
CAGGGTAACG TCTATCAAAG ATTTCTTCA TCAATTAATA CCTCCTGAAC AGGAATATCA	9720
TGGTTTTCAG GTATAAAGTC CTGAATTTGA CAAGGATATA TCGTACTCAA AGTACGACCA	9780
GAAAAATGTT CCAGATAGCG GTCATAATAG CCTCCACCGT ATCCTATCCG ATATCCTTTC	9840
GTCGTAAAAG CCAGACCAGG AACATGAATC AAATCAATCT GAGATGCATC CACCACTTCC	9900
AAATCTCCCT GTAGCTCCAG TAAGGCAAAG AAAGTTTTTA CCAACTGTTG CGGATCATAG	9960
ACCACAAAGT CCATGCGCCC CTTGGGATAA GTTTTGGGTA TTAACCTT CTTGCCGTCC	10020
TTTCAGCGCT GCTCAATCAG TTCCTGCGTT TGAAACTCAT GAGAAAAAGA GAGGTAGGTT	10080
GCGATGACCT TGGCTTCTTG ATAAAAGGGG TGTGTAAAA GCGCTCGGT TAAAGCTTGG	10140
TCTATAGCCT GTTTTGTCTC TTGAGATATA GCCTTCATTT CATGCAAGAC TTGCTTGCCT	10200
AATTCCGATT TCATAGACAA GCCCTCTATT CTGCTGCCCT CTTTTTCAGG AAAGTAGACA	10260
CCGACGCCAC CCCAATAGCT AAGACTTCTT CCTTAGGACT CATTGAGGG TGATGAAGAG	10320
CGTAGGGACT ATCGATACCT AGCCAAAACA TCACGCCATC AACCTTTGAA AGGAGATAAC	10380
CAAAGTCTC GCCTGTCATA GCAGGTTCTGA TATCAATCAA CTCGATTCCG TCTTTTTCGT	10440
CAAAGAAGTC CATCAGTTCA CGCGCAAGG CTGGATTGTT CTCAACAGGT AGGTATCCAC	10500
CTTGTTTGAG TTCCACTTCG ACTTCCATAT CAAAGGCAGC TGCAACCCCT TCTGCAACTG	10560
TTTTTACCCT CTTTTCGACC AAGAGACTCA TGTCTGTGT CAAGGCACGA ATAGTTCCAT	10620
GTA AAAAGC TGTGTCTGTG ATGACATTGT TGGTGGTTCC AGCTTGAAAA ACGCCGAAGG	10680
TCACCACGTC TCCCTCGATT GGGTTGACAT TGCGGCTAAC AACTGACTGC ACTTGGGTCA	10740
CAAAGTAACT AGCCGCCACC AAGGCGTCAT TGGCTTCATG AGGAAAAGCT GCGTGCCAC	10800
CTTTGCCTTT GAAACGGATC TTCACCTCGC AAGTTCTGTC AAAGAGTGTA TGAGTATTAG	10860

998

TCGCAATCTG GCCGACTTTC AAATCTGGAC GAACATGGAG ACCATAGAAT TGATCTGGCA	10920
ACCAATCTCC AAAAGCACCG TCCTCATACA TGAGCATACC ACCAGCTTCA TTTCTTCAG	10980
CAGGCTGAAA TAGAAGAGC AGATTATTCT TGGGTTGCTC CTCAAGGCG CGCTCAAGAC	11040
AGCCTAAGGC AATGGTCATA TGAAAATCAT GGACACAGGC ATGCATGCGA CCTTGGTGTT	11100
GAGAAGCAA AGGTAGACCT GTTGTTCGA CGATAGGCAG GCCATCAATA TCTGTCCGCC	11160
AACCAATGGT TCGCTCCGGC TGACTTCCCT GCAGGTAGAC CAAAATCCCT GTCCGCCAAG	11220
TACGAATTTG AACAAAATCC TTGCCCGTAG TCAATTCTC AATCACATCC AGCAAATAAG	11280
CCTGAGTCTT GAACTCCTCC AAGCCAATCT CTGGAATCTG GTGTAAATCT CGTCTAGTCT	11340
GAATCAAATC TAACATCTAT CTGTCCTCCG ATATAGCAGA AAGAGGCTGG AAAAAGGGTT	11400
CCGCCTCTTT TTTACTTTTA CAATTACAAG GTACGAAGCG CATCCTCTAG CGCTGTTTTT	11460
TGTTGAGTTT GGGCATCAAT TTCTTTGATA ATACGAGCTG GAACACCTGC TACTACCAG	11520
TTTTCTGGGA CATCTTGGGT AACAATAGCT CCTGCTGCGA CAACTGAACC ACTACCGATT	11580
TGGACTCCTT CGATAACCAC TGCATTAGCA CCGATAAGAA CATTGTCTCC GACACGGACT	11640
GGTTCAGCAC TAGCTGGCTC AATCACACCT GCCAAAACCTG CACCTGCACC AACGTGGCTA	11700
TTTTTTCCAA CGATGGCAGC GCCACCAAGG ATGGCACCCA TGTCATCAT GGTTCAGCA	11760
CCGATTTTCAG CACCGATATT GATAACAGAT CCCATCATGA TAACAGCATT GTCACCAATT	11820
TCCACCTGGT CACGGATAAT CGCACCTGGC TCGATACGAG CGTTGATAGC ACGCTTATCT	11880
AGCAAAGGAA CTGCAGAATT ACGAGCATCT TGCTCGACAA CATAATCTTG ATTTTCTACC	11940
AAACCTTCAA GAAGCGGAGC CACATCCTTC CAGTCTCCGA ATAGGACATT TCCTAGTTTG	12000
ACAACAGAGC TAGGCACAGC AGTTGCGAGT TGCCCCCTCAA AGGTTACTTT GACACTGGTT	12060
TTCTTTTCAG CATTGGCGAT AAATTGGATA ATTTCTTGAG CGTTCATTTT TGTAGCAGTC	12120
ATAGGTG	12127

(2) INFORMATION FOR SEQ ID NO: 149:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12566 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 149:

CCATCCTTCT GTTGATGTGA CAGGAATGAT GATAAATCAA CCAGTAGCTA GTCGCGAAGA	60
GGTGACAGAG GCTTTGAGTC ACTTGCGGGT AGAGCACAAT AGTCTCATTG CTCGTGGAAT	120

999

CGTTGAGCCA AATGAAGCTG GAGAAACACG CTTTACCTAT GCCACTTATG GTGAGGGAAA	180
GCTTCCAGAA GGTCTGACCA TTTCTCCAA GGAGAGTGCA GAAACGAGTG ATTTATTAGG	240
GTCTTACTTG ATTGTATCAG GAAGTTTGA TGGAGTGAGC TTACAGACCA CCTTGAAAGA	300
GCTTGGTTAT CAAGGCTTTG TTTGGAATGG AGAAGATCCA TTTTCGATAG TCTTACTATT	360
GACGGCCACC CCTATGGTGC TACTGAGTTT AGCTATTTT CTGCTGACCT TTATGAGTCT	420
GACCCTGATT TATCGGATCA AATCCCTTCG TCAGGCAGGG ATTCGCTTAA TAGCTGGTGA	480
GAGCTTGTTT GGAGTTGCTC TCAGACCAGT GTTAGAAGAT GTGAGACAGC TTATCTGCTC	540
AGTGCTGGTA TCCAGTCTTT TGGGATTGGG GATTCTCTGG TATCAAGGTG CCTTGTTTAT	600
GGCAACGGTG CAACTGGTCA TCATTGCTCT TCTACTTTAT GGATTGACCT TGGCAGGGAT	660
TTCTACCTTA CTAAGTGTGC TCTATCTACT TGGTTTACAG GAAAATAGTC TGGTGGATCT	720
ATTGAAAGGG AAATCCCTC TCAAACGTAT GATGACATTG ATGATGGTGG GGCAACTCTT	780
AGCTGTATTG GTGGTCGGAT CGAGTGCAC AGCTCTCCTA CCCCACTACC GTGAAATGCA	840
GGAAATGGAG AGAGCTAGCA ATAAATGGAG CCAGTCCTCA GACCGTTACC GTCTATCCTT	900
TGGTTGGTCT AGTGCAATTG CCGATGAAGA AGGAACGCGT AAGGATAATC GTGAGTGGCA	960
GACATTTACT GAAGAACGGT TAGCCAATAC AGACTCTTTT TATATTATGA GCAATGTTGA	1020
CAATTTCTCA GATGGAGCAG AAGTGGACCT AGATGGCAAT CGTCTCAGTG ACTACACACC	1080
GTCAGGGAAT GTTATCTATG TCTCACCGCG CTATCTGATA GAAGAAAAGA TTACCGTTTC	1140
TTCAGAGTTT ATGGACAAGA TGCAAACTT GTCTGAGGGA GAGTTTGGGC TGATCTTGCC	1200
TGAGAGCTTG CGAGAGCAGT CTGTCTACTA CCAAGGATTG TTTACAGATT ACCTGCAAAA	1260
CTTTTCATCT GAAAGTGTAG AAGTGACGAG TCAGAAACAC TACCTCCCAC AGGTAAGGCT	1320
AGCTTTTACA GAAACAGGAC AGGAACGTTT CCTCTATAAT GATGGGTACA AGACAACACG	1380
CCAGTACCTA AAAGATCCGA TTATTGTAGT TCTAACGCCG CAAGCGACTG GAACAAGACC	1440
TGTTGCAGGG ATGTTGTGGG GAACTACGGC TAATAGTGCC TTGAAACTAG ATCGATATGG	1500
AGACAGCATC ACAGCTCTAA AAGAGAAAGG TCTGTATCAC AAGGTTTCTT ACTTGGTAAA	1560
AAGCCAGCTA TTTTGTGCGA AGGTACTAAA TGACAAACGG GTGGAGTTT ACTCTCTCCT	1620
TATTGGGACG ATTTTGACCC TGTCTACGGC TATCTTGTTA TTTGATTCCA TGAATCTTCT	1680
CTATTTTGAG CAGTTCAGAC GGGAACCTAT GATTAAACGT CTTGCTGGTA TGACAATCTA	1740
TGAGCTTCAT GGCAAGTATT TACTGGCGCA AGGAGGAGTT CTCTTGCTTG GCCTAGTCCT	1800
ATCTAGTATT TTGACAAGAG ATGGTTTGAT TAGCGCTCTA GTTGTAGCTT TGTTTACGCT	1860

1000

TAACGCCCTC	TTGATTTTAG	TAAGGCAGGA	CAAAAAAGAA	GAAGCTGGTA	GCATGGCAGT	1920
ATTGAAAGGA	AAATAAGATG	ATTGATATTC	AAGGATTGGA	AAAGAAATTT	AATGACCGCG	1980
CGATTTTCTC	TGGTTTGAAT	CTCAAGCTGG	AGAAGGGCAA	GGTTTATGCC	TTAATCGGAA	2040
AGAGTGGAAG	CGGAAAGACG	ACGCTGCTGA	ATATCTTGGG	AAAGCTAGAA	AAGATAGATG	2100
GTGGAAGGGT	TCTCTATCAG	GGGAAAGATT	TAAAAACCAT	TCCCACTCGT	GAGTATTTTC	2160
GAGACCAGAT	GGGCTATCTC	TTTCAAAATT	TCGGCCTCTT	AGAAAACCAA	TCAATCAAAG	2220
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AAGTGGGGGC	TTTAGAAAAA	GTTAATCTAG	GGTATTTGGA	TTTAGAACAA	AAAATCTATA	2340
CTTTATCTGG	GGGAGAGGCC	CAACGAGTTG	CCCTTGCTAA	GACTATTTTG	AAAAATCCAC	2400
CCTTGATTTT	GGCAGATGAA	CCAACAGCAG	CTCTTGATCC	TGAAAAATCA	GAGGAGGTTA	2460
TGAATCTCTT	GGTGGATTTG	AAAGATGAAA	ATCGAATTAT	CATCATTGCG	ACCCATAATC	2520
CCCTAGTCTG	GAATAAGGCT	GATGAAATCA	TTGATATGAG	GAAACTTGCT	CATGTGTGAA	2580
AAAATCCGTA	TTGCGAGGGT	ATCTGATTAT	CCTAGTGCCA	GAGGTGGTTT	AGAAGATATC	2640
CTCATCATGG	AAAATATGAC	CAATCATCTC	CTTTTGGTTC	AAATCCGAGT	GCATGGCTAT	2700
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CCTCAGACGG	TTGAACTGAC	AGTGGATGAT	GTGGAGGAGG	ATGTGGATTT	GACCCTACCT	2820
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CCTGCCAATC	AAGTAGTGG	CTAATTTGCC	TTACTACATC	ACGACGCCTA	TTCTCATGCA	3420
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GGACCGCATT	TCAGCCCAGC	CTAACACCAA	GGCTTACGGT	AGCTTGTCTA	TCGCCGTGCA	3540
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1002

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1003

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1004

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